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ABSTRACT

This updated, revised edition of a report published in 1965 provides a broad overview of the Mongolian educational system. The first chapter, An Outline of the Educational System, includes discussions of the growth of the public education system; types of education; teacher training; curricula; school calendars; textbooks; and administration. The second chapter, Quantitative Development of Education, focuses primarily on planning. Educational Projection up to 1980, Chapter 3, looks at projections for general education, secondary specialized education, higher education, and overall costs. All chapters are abundantly illustrated with tables of educational statistics. (JLB)

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EDUCATION
IN THE
MONGOLIAN PEOPLE'S REPUBLIC

Unesco Regional Office for Education in Asia
Bangkok
1971

This is a new edition of a report originally prepared by a Unesco planning team, published in 1965. On a request of the Regional Office, the National Commission for Unesco of the Mongolian People's Republic has brought the data up to date and revised the text and statistical tables to incorporate new developments. The Regional Office makes grateful acknowledgment to the National Commission for responding to its request. Any opinions expressed or implied in this publication are those of the Mongolian authorities, and do not necessarily reflect the views of Unesco.

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CHAPTER 1

AN OUTLINE OF THE EDUCATION SYSTEM

General information

The Mongolian People's Republic comprises a territory which extends over 1,535 000 square kilometres (591,000 sq. miles) and is situated almost in the heart of Asia, bordering on the USSR to the North and the People's Republic of China to the South. The population of the country, according to the 1969 census, was 1,197,200, or 0.76 per square kilometre. Recent years have seen a remarkable population growth resulting from a sharp drop in the mortality rate and an increase in the birth rate. Mongolians constitute over 90% of the entire population. Peoples of Turkish origin (Kazakhs, Uzbeks) and a small percentage of Chinese and Russians account for the rest.

The highest legislative organ of state power in the Republic is the Great National Khural, a one-chamber Parliament, elected by the population for a four-year term on the basis of universal, equal and direct suffrage with secret ballot. Between sessions of the Great National Khural, the highest organ of state power is its Presidium, consisting of the Chairman, his deputy, a secretary and six members, and functioning as the collective presidency of the country.

The Great National Khural appoints the Government of the country, the Council of Ministers, the highest executive and administrative body, which is responsible and accountable for its activities to the Great National Khural and, between sessions, to its Presidium.

The Council of Ministers is composed of its Chairman, Deputy Chairman, the Ministers, the Chairman of the State Planning Commission, the Chairman of the State Bank of the Mongolian People's Republic, the Chairman of the Committee for Labour and Wages, the President of the Academy of Sciences, and the Chairman of the Central Statistical Board.

Functioning are the Ministries of Agriculture, Army and National Security Affairs, Building Materials, Construction, Culture, Education, Finance, Food Industry, Foreign Affairs, Foreign Trade, Home Trade, Power and Industry, Public Health, Transport and Communications.

The country is divided into 18 aimaks (provinces) which are subdivided into 318 somons (the smallest rural regions). The 18 aimaks are as follows :

1. Arkhangai
2. Bayan-Khongor
3. Bayan-Ulgy
4. Bulgan
5. Central
6. Dzabkhan
7. Eastern
8. Eastern Gobi
9. Gobi-Altai
10. Khentei
11. Khubsugul
12. Khobdo
13. Middle Gobi
14. Selenga
15. Southern Gobi
16. Sukhe Bator
17. Ubsunur
18. Uver-Khangai

Ulan-Bator, the capital of the Republic, with a population of 262,600 according to the 1969 census, is a self-dependent administrative unit divided into five districts. Every administrative territorial unit has a local executive body. The local organs are elected on the basis of universal suffrage by the population of each locality.

Women in the Mongolian People's Republic are almost equal to men in number, and fully equal in their social status. They were socially upgraded after the 1921 Revolution and encouraged to participate actively in the nation's political economic, social and cultural life.

Thanks to the rapid expansion of the compulsory school system and intensive literacy campaigns, the percentage of literates among the population from 9 to 50 years of age increased from 7.3% in 1935 to almost 100% in 1969.

Great successes have been recorded by the Republic in the sphere of cultural development, science, public education and health. One in every six of the population is receiving education in some educational institution; practically all children of primary school age are in school.

In the Mongolian People's Republic there are 484 primary and secondary schools, 19 specialized secondary schools (tekhnikums) and 6 institutions of higher education. Hundreds of advanced training courses and evening schools are available for those who wish to acquire vocational or professional training without interrupting their actual occupation.

The Academy of Sciences and the majority of higher educational establishments having a large staff of highly qualified personnel have become centres of research work in almost all branches of the national economy.

About 50% of the population is engaged in livestock breeding, but land cultivation is developing rapidly and the Republic is becoming self-sufficient in food grains as a result of the development of more than 700,000 acres of virgin soil.

There is an important range of industries such as coal mining, electric power production, and food, metal-working, wood-working, building materials, textile and leather industries. Industrial production is growing, and its share in the national economy has become equal to that of agriculture.

Coal is being mined in the coal-bearing region of Nalaikha. There are also mines in the east and south of the country, and deposits are estimated at thousands

of millions of tons. An oil industry has developed, and production of non-ferrous metals is increasing. Light industries are mainly based on working or processing raw materials derived from animal husbandry. The factories turn out broadcloth, felt cloth, miscellaneous articles of wood, footwear, knitwear, leather articles and other consumer goods.

The food industry consists mainly of butter manufacturing, confectionery, mechanical bakery, beer-brewing and spirit processing. The plants are located in Ulan-Bator as well as in aimak centres.

The metal industry, turning out a variety of steel and non-ferrous metal castings, mechanical tools for agricultural purposes and spare parts for cars, industrial equipment and agricultural machinery, is so far concentrated in Ulan-Bator.

The furniture factories in Ulan-Bator constitute the main branches of the woodwork industry which supplies the demands of the population.

The printing and publishing industry is also developing. In addition to the printing and publishing combine in the capital, all the aimak centres now have their own printing works.

The expansion of modern industry depends on power supplies, and hence much attention is being paid to the development of power stations. Electricity production has increased almost threefold since 1957. Besides the central power plant in Ulan-Bator, the 18 aimak centres have their own power stations for supplying local undertakings.

Side-by-side with State-owned industry are co-operative undertakings turning out some 2,000 types of products and accounting for 20% of the country's output.

The characteristic feature of industry in the Mongolian People's Republic is its newness and its rapidly increasing tempo: between 1957 and 1963, industrial output increased by 250%.

The rapid development of national economy and culture requires a system of public education able to cope with increasing tasks and demands, and the State accordingly plays close attention to the public education system and its development.

The growth of the public education system

Before the 1921 Revolution the main educational institutions in the country were Lama monasteries, with only one secular school in existence. In October 1921 the People's Government set up the first primary school for 40 pupils, offering instruction in the mother tongue, arithmetic, nature study, geography and history - subjects which had never been taught in monastery schools.

Since the new State inherited almost complete illiteracy(in pre-revolutionary Mongolia there was only 1% of literates), one of the first crucial tasks of the young People's Government was the eradication of illiteracy and the establishment of a public education system.

The first Great National Khural, held in 1924, proclaimed the country a People's Republic, adopted the first Constitution, charted the path of development of public education in the country and declared the right of the working people and their children to free and secular education. In the twenties, in addition to government-supported schools there were a number of voluntary schools organized and financed by the people themselves. As the majority of the people were nomads, special attention was given to the organization of boarding facilities for school children.

The thirties represented a new stage in the development of the public education system. In 1933 the first unified curriculum and syllabuses were introduced, worked out on the basis of those of the Soviet schools.

The number of schools with boarding facilities supported and financed by the Government increased considerably, the children attending them receiving free clothes, food, textbooks and stationery. The Lama monastery schools were completely ousted by secular schools, this marking a great victory in the ideological struggle.

By the end of the thirties, all of the prerequisities for the solution of the
By the end of the thirties, all of the prerequisities for the solution of the
key problems connected with the transfer of the country to the construction of social society had been created.

In 1940, a single unified school system was introduced, marking the beginning of a vigorous extension of public education. The Mongolian People's Revolutionary Party and the Government exerted every effort to eliminate the remnants of mass illiteracy among the people. The spread of literacy and further development of public education were expedited by the reform of the old Mongolian alphabet in 1941, when Cyrillic characters replaced the ancient ones. In the course of the first five-year plan (1948-1952) the number of general education schools showed a steady increase. The Constitution of 1952 once again guaranteed the right of all citizens to education, the enjoyment of this right being ensured by the provision of compulsory general primary education, the development of a network of schools and institutions of secondary specialized and higher education, the use of the mother tongue as the medium of instruction, the system of state scholarships for students in secondary specialized and higher educational institutions and the free vocational training of workers.

During the years of the Second Five-year plan (1953-1957), it became possible to introduce universal compulsory four-year education all over the country. In 1958, the Government made a decision whereby compulsory seven-year education was to be introduced in town and aimak centres.

In February 1963, the Great National Khural considered and approved the theses of the Central Committee of the Mongolian People's Revolutionary Party and the Council of Ministers "On strengthening the ties between school and life and further developing the public education system", which had received universal support in the course of nation-wide discussion, and adopted the School Law.

According to this Law, the main task of schools in the Mongolian People's Republic is to produce educated people capable of integrating physical with mental

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labour, and to bring up the rising generation in the spirit of profound respect for the principles of socialist society. The complete secondary education of young people from age 16 to 17 is to be based on the combination of instruction with productive work.

The application of the School Law required new curricula and syllabuses for eight-year and eleven-year schools. These were worked out by the Educational Research Institute and approved by the Ministry of Education in 1964 and were initially applied in 28 eight-year and 19 eleven-year schools. In the course of introducing eleven-year education, however, a number of difficulties were met and drawbacks revealed. In consequence, eleven-year complete secondary education is at present being reduced to ten years, with the retention of the principal aims and tasks of complete secondary education as outlined in the School Law.

The public education system in the country is thus passing through a transitional phase characterised by the existence of pre-reform schools side-by-side with new schools.

The charts on the next pages (Figures I and II) provide a picture of the education system in the Mongolian People's Republic before and after the adoption of the School Law.

The educational ladder begins with nursery school and extends to higher education institutions, with provision in-between for kindergartens, primary schools, seven-and eight-year schools, complete secondary schools of ten or eleven years, secondary specialized schools (tekhnikums) for agricultural and industrial workers, and general education evening schools for young workers and adults.

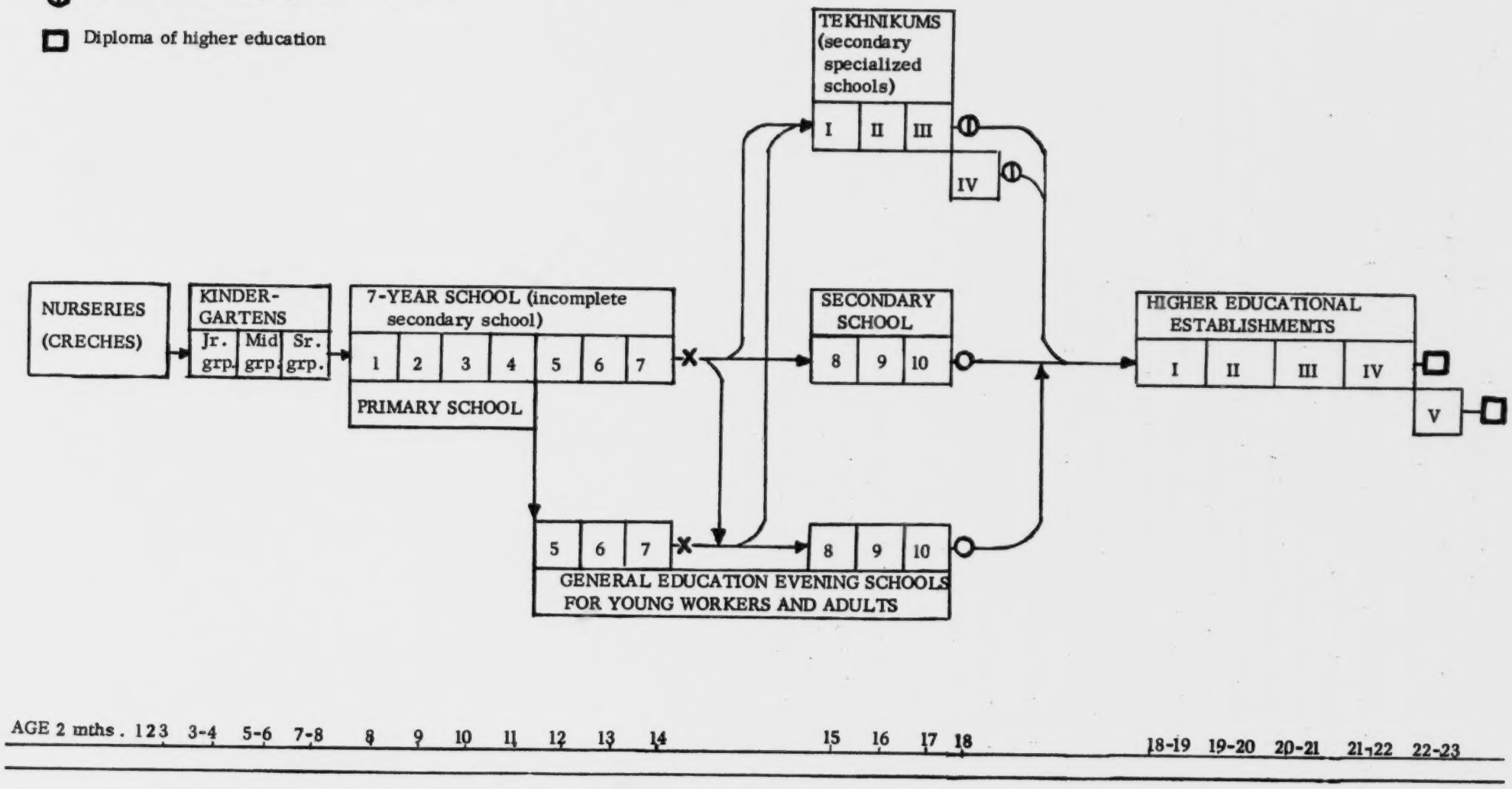
Figure 1

X Incomplete secondary school certificate

O Matriculation certificate

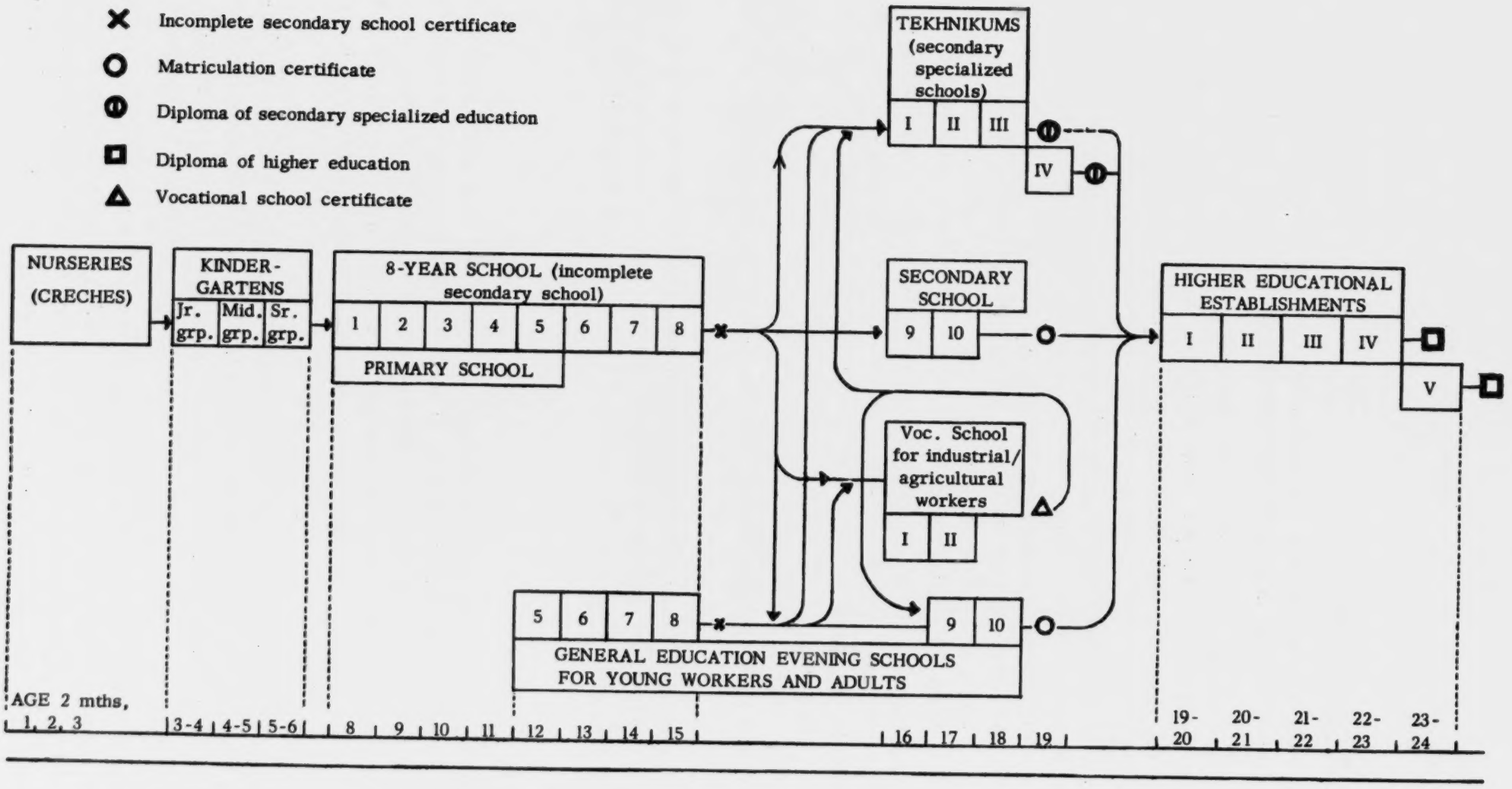
Φ Diploma of secondary specialized education

□ Diploma of higher education


NURSERIES (CRECHES)
KINDER-GARTENS
Jr. grp.
Mid grp.
Sr. grp.
7-YEAR SCHOOL (incomplete secondary school)
1 2 3 4 5 6 7
PRIMARY SCHOOL
TEKHNIKUMS (secondary specialized schools)
I II III
IV
SECONDARY SCHOOL
8 9 10
HIGHER EDUCATIONAL ESTABLISHMENTS
I II III IV
V
5 6 7
8 9 10
GENERAL EDUCATION EVENING SCHOOLS FOR YOUNG WORKERS AND ADULTS
AGE 2 mths. 1 2 3 3-4 5-6 7-8 8 9 10 11 12 13 14 15 16 17 18 18-19 19-20 20-21 21-22 22-23

THE PUBLIC EDUCATION SYSTEM IN THE MONGOLIAN PEOPLE'S REPUBLIC (before 1963)

Figure II


Incomplete secondary school certificate
Matriculation certificate
Diploma of secondary specialized education
Diploma of higher education
Vocational school certificate
NURSERIES (CRECHES)
KINDER-GARTENS
Jr. grp.
Mid. grp.
Sr. grp.
8-YEAR SCHOOL (incomplete secondary school)
1 2 3 4 5 6 7 8
PRIMARY SCHOOL
TEKHNIKUMS (secondary specialized schools)
I II III IV
SECONDARY SCHOOL
9 10
Voc. School for industrial/ agricultural workers
I II
5 6 7 8
9 10
GENERAL EDUCATION EVENING SCHOOLS FOR YOUNG WORKERS AND ADULTS
HIGHER EDUCATIONAL ESTABLISHMENTS
I II III IV V
AGE 2 mths, 1, 2, 3
3-4 4-5 5-6 8 9 10 11 12 13 14 15 16 17 18 19
19-20 20-21 21-22 22-23 23-24

THE PUBLIC EDUCATION SYSTEM IN THE MONGOLIAN PEOPLE'S REPUBLIC (in 1969)

Types of education

a) Pre-school education

Pre-school institutions include nurseries (creches) for children aged a few months to three years, and kindergartens for children from three to eight.

The nurseries come under the Ministry of Health, while the kindergartens are usually the responsibility of the Ministry of Education. Both were formerly financed by the State through the Local departments of health (nurseries) and education (kindergartens). But a number of industrial undertakings and agricultural co-operatives have recently started providing nursery and kindergarten facilities for the children of their workers. Thus, from the point of view of finance, the pre-school educational establishments may be divided into two groups: State-supported institutions, and those supported by industrial undertakings and agricultural co-operatives. All nurseries and kindergartens are optional and free, with only a small fee charged as partial coverage of expenses on food. Monthly fees for a child in a kindergarten, for example, range from 13 to 50 tugriks (4 tugriks equal approximately one U.S. dollar), whereas food expenses alone amount to about 115 tugriks per child. The fees are based on the parents' income and the number of children from the same family sent to the kindergarten. If a family sends several children, the fee for the first child is 25% of the per-member income of the family, for the second child it is 20% of the per-member income of the family, while no fee is paid for the rest of the children.

The enrolment of children in nurseries and kindergartens is at the request of the parents. All work with children in kindergartens is conducted in accordance with curriculum worked out by the Department of Pre-School Education of the Ministry of Education.

b) Primary education

Primary education can be obtained in primary four-year schools (which exist mostly in rural areas) and in the first four grades at seven- or eight-year incomplete secondary schools or ten- or eleven-year complete secondary schools. No matter which variety of school the child enters at the age of eight, he follows the same curriculum and syllabuses and meets the same requirements at the State examination taken after completing four years of schooling.

Primary education constitutes the basis for the seven-year "pre-reform" school as well as for the new eight-year school. The aims of primary education are to give children a firm grounding in basic knowledge (reading, writing, arithmetic), to inculcate a love of work, and to provide moral, physical and aesthetic education.

The curriculum for the first four grades includes Mongolian language, arithmetic, drawing, music and singing, physical education, and manual training. In the third grade the children begin studying Russian as a foreign language, and in the fourth grade they are taught the history of the Mongolian People's Republic and nature

study. The history lessons consist of stories about the country's past and present, while the nature study lessons give an elementary idea of the properties of water, air, certain rocks and minerals, as well as of the structure and functions of the human body. The children also receive their first instruction in geography on the basis of a study of their country.

c) Incomplete secondary education

Incomplete secondary education is imparted in pre-reform seven- or ten-year schools after completion of the seventh grade or in new eight- or eleven-year schools after the eighth grade. On leaving the seventh grade of the first type of school, or the eighth of the new school, the adolescents take another State examination and are awarded the incomplete secondary school certificate if successful.

Whereas the main objectives of the seven-year school are to give pupils a solid grounding in general knowledge and to provide for their moral, physical and aesthetic education, the eight-year school extends the above objectives by preparing pupils for socially useful activities. By closely associating study and life, the eight-year school prepares the pupils for various kinds of activities in production and for continuing their secondary education by combining the latter with socially useful production work.

The curriculum for the seven-year school includes the following subjects: mother tongue and literature, foreign language (Russian); mathematics (arithmetic, algebra, geometry); physics; chemistry; history; the Constitution of the Mongolian People's Republic; botany and geology; physical geography of the country; drawing and technical drawing, physical training and technical training in wood and metal workshops. The eight-year school has the same subjects of general education as the seven-year school, but much more attention is paid to labour instruction, and socially useful work is introduced in grades III-VIII. In grade VIII, fundamentals of agriculture are taught both in rural and urban schools.

Incomplete secondary education can be also obtained in general education evening schools for young workers and adults. The aims of incomplete secondary evening schools are almost the same as those of full-time day schools, the only difference being that physical education is not provided and the pupils are not prepared for production activities, since they participate in them through their work in individual industrial and agricultural undertakings.

d) Complete secondary education

A complete secondary education is provided for those who have an incomplete secondary certificate obtained either in day or evening schools of general education. There are three ways of obtaining a secondary education in the Mongolian People's Republic: in eleven- or ten-year secondary day schools, or in ten-year general education secondary evening schools for young workers and adults or in secondary specialized schools usually known as "tekhnikums".

The aims of secondary education are defined by the type of schools providing it. The secondary general education labour polytechnical school with vocational training aims at the all-round development of pupils' capacities and at raising people with a good basic knowledge of science and capable of systematic physical work. This type of school provides a full secondary general and polytechnical education, and vocational training for work in some branch of the national economy or cultural life by combining regular academic studies with productive labour. The secondary general education evening school is designed for those who have completed the course at seven- or eight-year day or evening schools, and are beginning or continuing work in industry, agriculture or cultural life. Secondary evening schools also provide a full secondary and polytechnical education. Since such schools enrol only those who are engaged in permanent work, no vocational training is aimed at, and hence the period of study is only ten years. Those who have completed secondary education in the above schools are awarded matriculation certificates which qualify them for admission to higher educational establishments.

The secondary specialized schools known as "tekhnikums" furnish the students with the general knowledge coming within the scope of the secondary school as well as with essential theoretical and practical training in the respective speciality. Students in technical and agricultural tekhnikums additionally require a qualification rating for jobs as skilled workers. Graduates of tekhnikums receive secondary specialized education diplomas which entitle them to work in the field of the acquired speciality and to enter higher educational establishments after two years' practical experience in their speciality. General secondary school level in major subjects is an essential requirement.

In the 1969/70 academic year, the country had 19 secondary specialized schools training specialists for nearly every branch of industry, agriculture, public education and health. Table I is a list of tekhnikums which gives an idea of the type of specialists trained, duration of studies, and administering authority.

The increasing demand for specialists with secondary specialized education has led to a continuing rise in annual enrolment of tekhnikum students.

The curricula and syllabuses of secondary education vary from one type of school to another, and are based on each school's main objectives. The subjects of all the curricula for secondary education schools may be divided into two groups - subjects of a general educational nature, and those aimed at professional training. The subjects in the first group are to be found in all the types of secondary school : the secondary general education labour polytechnical school with vocational training (eleven-year schools), the ten-year secondary general education school, the secondary general education evening school for young workers and adults, and the tekhnikums. General education subjects common to all secondary schools are : Mongolian language and literature, mathematics (algebra, geometry, trigonometry), history, social science, geography, biology, physics, astronomy, chemistry, foreign language (Russian). General technical subjects, production training and practice with productive work form the basis for vocational training in the eleven-year school. Special subjects in tekhnikums serve the purpose of professional training and are established

Table 1. TEKHNIKUMS (ACADEMIC YEAR 1969/70)

Name and locality	Main types of specialists trained or fields of specialization	Duration of studies (years)	Administering authority
1. Polytekhnikum, Darkhan	a) Miners, electricians technicians, geologists etc. b) Food industry	4 3	Ministry of Geology, Fuel & Electricity
2. Construction Tekhnikum, Ulan Bator	a) Builders, building materials technicians, sanitary technicians, building equipment technicians, technical draughtsmen and designers, specialists in geodesy and forestry etc. b) Evening course of construction for raising qualifications of the building specialists	3-4	Ministry of Construction
3. Railway Tekhnikum Ulan Bator	a) All specialities required for railway and transport services and communications b) Communications economists c) Motor technicians d) Operation of motor transport	3-4	Ministry of Transport and Communications
4. Agricultural Tekhnikum, Altanbulak, Selenga aimak	Veterinarians, zoo-technicians, agro-technicians	3-4	Ministry of Agriculture
5. Agricultural Tekhnikum, Khobdo aimak	Veterinarians, zoo-technicians	3	Ministry of Agriculture
6. Agricultural Tekhnikum, Eastern aimak	Veterinarians, zoo-technicians	3	Ministry of Agriculture
7. Agricultural Tekhnikum, Middle-Gobi aimak	Veterinarians, zoo-technicians	3	Ministry of Agriculture
8. Agricultural Tekhnikum	Meteorologists, water surveyors, specialists in land-exploitation	3	Ministry of Agriculture
9. Commerce	a) Book-keepers, accountants, planners, statisticians, experts in commodities b) Technicians for food industries	3	Ministry of Home Trade
10. Financial Tekhnikum Ulan Bator	Accountants, book-keepers	4	Ministry of Finance

Table 1. TEKHNIKUMS (ACADEMIC YEAR 1969/70) (continued)

Name and locality	Main types of specialists trained or fields of specialization	Duration of studies (years)	Administering authority
11. Law Tekhnikum, Ulan Bator	Lawyers, interrogaters, notaries	4	Supreme Court of the MPR
12. Teacher training Tekhnikum Arkhangai aimak	Primary school teachers	3	Ministry of Education
13. Teacher training Tekhnikum Khobdo aimak	Primary school teachers	3	Ministry of Education
14. Teacher training Tekhnikum Ulan Bator	a) Primary school teachers b) Music teachers c) Workers of Culture and Education d) Primary school, teachers through correspondence course e) Correspondence teacher training Tekhnikum, Ulan-Bator primary school teachers	3-4	Ministry of Education Ministry of Education
15. Pre-school Teacher Training Tekhnikum	Kindergarten teachers	3	Ministry of Education
16. Music and Choreography School, Ulan Bator	a) Dancers b) Musicians	11 (including 8-years school)	Ministry of Culture
17. Medical Tekhnikum	a) Doctors' assistants (feldschers), pharmacists b) Laboratory assistants, radiologist-technicians, sanitary inspectors and assistants	3-4	Ministry of Health
18. Medical Tekhnikum Eastern Gobi aimak	Doctors' assistants (feldschers)	4	Ministry of Health
19. Medical Tekhnikum, Gobi-Altai aimak	Doctors' assistants (feldschers)	4	Ministry of Health

for each speciality trained for. For example, in the teacher training tekhnikums the special subjects are methodology of teaching Mongolian language and penmanship, arithmetic, nature study, music and singing, drawing, manual training and physical education, general and child psychology, theory of education, school hygiene.

Secondary education as developing in the Mongolian People's Republic is characterized by a wide variety of curricula and syllabuses used in different types of secondary educational establishments and by the multiplicity of aims and objectives.

e) Higher education

The main tasks of higher education in the Mongolian People's Republic are: (1) to prepare highly qualified specialists brought up on the basis of Marxist-Leninist teaching and capable of making the fullest use of contemporary techniques; (2) to train scientific and pedagogical personnel; (3) to raise the qualifications of specialists engaged in various branches of the national economy, cultural life, education and health; and (4) to disseminate scientific, cultural and political knowledge among the broad masses of the people.

Since the preparation of specialists in higher educational institutions is conducted on the basis of complete secondary education, secondary school leavers as well as tekhnikum graduates are entitled to enter the university and the institutes.

To meet fully the needs of those wishing to acquire a higher education without interrupting their work, a network of evening and correspondence courses has been organized on the basis of the full-time institutes.

In the 1969/70 academic year, the country had six higher educational establishments training highly qualified specialists for almost every branch of the national economy, cultural life, education and health. Total enrolment for the 1969/70 academic year was 8,733. All full-time students who pass the required examinations get State scholarships. Those who need boarding facilities are provided with hostel accommodation. All the higher educational establishments are located in Ulan-Bator, since almost every professor and lecturer at the university or at the institutes carries out research work and needs experimental laboratory facilities, which are not for the time being available elsewhere.

Table 2* gives a list of the higher educational establishments in the 1969/70 academic year, the field of training or the main specialities provided for, and the administering authority under which they come, which finances them, and which assigns the graduates to work.

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* Table 2 appears on pages 14-16.

Table 2. HIGHER EDUCATIONAL ESTABLISHMENTS

Higher educational establishments (with departments, if any)	Main specialities or fields of training provided for	Duration of studies (years)	Administering authority
1. Mongolian State University			
a) Day Departments	(1) Faculty of Mathematics and Physics: mathematicians, physicists (2) Faculty of Natural Sciences: chemists, biologists, geographers (3) Faculty of the Humanities: philosophers, historians, lawyers (4) Philological faculty: philologists in Mongolian language and Literature, in Russian language and literature, in English, in French (5) Faculty of Economics: financial economists, statistic economists, accountants	5	Ministry of Education
b) Evening Departments	(1) Economists in accountancy, planning, finance, commerce, statistics, lawyers, historians		
c) Correspondence Departments	(1) Lawyers		
2. State Pedagogical Institute			
a) Day Departments	(1) Faculty of Mongolian Language: Secondary school teachers of Mongolian language and literature (2) Faculty of Russian Language: Secondary school teachers of Russian language and literature (3) Faculty of Mathematics and Physics: teachers of mathematics and physics		

Table 2. HIGHER EDUCATIONAL ESTABLISHMENTS (continued)

Higher educational establishments (with departments, if any)	Main specialities or fields of training provided for	Duration of studies (years)	Administering authority
2. State Pedagogical Institute (cont'd)	(4) Faculty of Natural and Social Sciences: teachers of history and geography, teachers of chemistry and biology Producers, music teachers (5) Faculty of Pedagogy, Drawing and Painting and Technical Drawing: Teachers in painting and technical drawing, educationalists (6) Faculty of Physical Culture and Sports: Teachers of physical education, Sports coaches	4-5	Ministry of Education
b) Correspondence Department	(1) Teachers of Mongolian, Russian, mathematics, physics, history, geography		
3. Medical Institute a) Day Departments	(1) Faculties of General Medicine, Pediatrics, Pharmacology, Stomatology Sanitary hygiene: refresher courses for specialists	5-6	Ministry of Health
4. Agricultural Institute a) Day Departments	(1) Faculty of Veterinary Sciences: Veterinary surgeons (2) Faculty of Zootechnology: Zootechnicians (3) Faculty of Agricultural Mechanization: experts in agricultural mechanization	5	Ministry of Agriculture
b) Correspondence Department	(1) Agricultural economists, engineers of agricultural mechanization, zootechnicians, veterinary surgeons		

Table 2. HIGHER EDUCATIONAL ESTABLISHMENTS (continued)

Higher educational establishments (with departments, if any)	Main specialities or fields of training provided for	Duration of studies (years)	Administering authority
5. Polytechnical Institute	(1) Faculty of Power Production: Power engineers, energetics engineers (2) Faculty of Mechanics Technology: Auto-transport, Mechanical engineers		
a) Day Departments	(3) Faculty of Construction: Building engineers, Sanitary engineers (4) Faculty of Engineering Economists: Engineering economists Engineers of production, Construction, transport (5) Faculty of Geology and Mining Geological engineers	5	Ministry of Education
b) Evening Departments	(1) Engineers of Production Economics, Building engineers, Power engineers		
c) Correspondence Departments	(1) Engineers of Production Economics		
6. Higher Party School	(1) Party work	4	C. C., Mongolian People's Revolutionary Party

At the beginning of the 1969/70 academic year, a Polytechnical Institute was organized on the basis of the Engineering and Geological faculties of the Mongolian State University with the help of Unesco.

f) Vocational education

The main purpose of vocational education in the Republic is to train skilled industrial and agricultural workers for all branches of the national economy. At present there are three media for training skilled workers for industry and agriculture:

1. Short-term courses both home and abroad with individual and time-training/ apprenticeship
2. Vocational schools for industrial workers
3. Vocational schools for agricultural workers

The latter two types of school providing vocational training have been introduced following the adoption of the School Law in 1963, and constitute an integral part of the general system of public education. Vocational schools are included in the chart as links in the chain of public education. On leaving vocational school, the young people are given a qualification certificate and begin working.

The individual-and-team method of training skilled workers through short-term courses at industrial enterprises has always played an important part in meeting the needs of the developing national economy. This method of apprenticeship largely satisfies the current demand for skilled workers large enterprises, as well as the demand for workers in trades with few openings. When workers are trained in a factory, the period of study does not exceed 6 months, and varies from one undertaking to another. Hence the various kinds of short-term courses with individual-and-term training are not to be found in the above-mentioned chart.

In 1963, expenditure on vocational schools represented 9.7% of total current educational expenditure. The number of vocational schools for industrial and agricultural workers is still very small, and no official enrolment data are available. Considering the rapid development of the national economy, however, they undoubtedly have a big future.

Vocational schools for industrial workers with two-year terms of study are set up on the basis of the eight-year school. After completing the courses of training, the young workers are entitled to continue their education by taking evening courses at tekhnikums or in the upper grades at general-education evening schools.

Vocational schools for agricultural workers are intended for young "arats" (farmers) who have a primary education and who wish to work in animal husbandry. The period of study in such schools varies from six months to two years. Holders of agricultural vocational school certificates have the right to continue their education in the grade V at general education evening schools.

The system of vocational education in the Mongolian People's Republic is so far in the initial stage of development, but the country has every prerequisite for its further growth.

Teacher training

The development of public education calls for intensive preparation of teachers for all types of educational institutions. At present, all the teachers able to conduct classes in the mother tongue of the pupils are trained within the country.

Kindergarten teachers get their training at the Ulan Bator Pre-School Teacher Training Tekhnikum. Teachers for the first four grades are trained in the three teacher training tekhnikums located in Ulan Bator and in the "aimak" centres of Arkhangai and Khobdo. The duration of studies in such schools is three years, on the basis of seven- or eight-year general education schools. Subject teachers for grades V-VIII and IX-XI are trained at the Pedagogical Institute, and at some of the State University faculties. Music teachers are trained in the Music Division of the Ulan Bator Teacher Training Tekhnikum, with a four-year course of study. Teachers of physical education for all types of educational establishment, with the possible exception of primary schools, take training courses at the faculty of Culture and Sports of the Pedagogical Institute.

Before 1958, teachers for grades V-VII took a three-year training course at the Ulan Bator Teachers Institute which enrolled students who had completed ten-year schools. The Teachers Institute was set up in 1951, and in 1958 it was reorganized into a four-year pedagogical institute preparing teachers for secondary schools. It is now the only higher pedagogical institute in the country.

The Ulan Bator State Pedagogical Institute comprises six faculties, as well as one-year courses for former graduates of the Teachers Institute. The faculties are as follows:

1. Mongolian Language and Literature Faculty, training teachers of the mother tongue and its literature;
2. Physics and Mathematics Faculty, graduates of which are entitled to teach both physics and mathematics;
3. Science and Humanities Faculty, with three sections training teachers of geography, history, and chemistry/biology respectively;
4. Faculty of Pedagogical Drawing and Painting, and Technical Drawing:
   a) Drawing and technical drawing,
   b) Technical training,
   c) Teachers in Painting,
   d) Educationalists;
5. Russian Language and Literature Faculty, training teachers of Russian language and literature for all types of schools;
6. Faculty of Physical Culture and Sports, training teachers of physical education and sports coaches.

The section for training primary school teachers with higher education was incorporated into the fourth faculty, which has been re-organized and renamed. The country is in need of highly qualified teachers for primary schools as well as for teacher training tekhnikums, and a certain number of such teachers are accordingly being trained at the Pedagogical Institute.

Students take a four-year course of training in all faculties except the fifth, where the period of studies is five years on account of linguistic difficulties.

During the course of its existence from 1951 to 1958, the Teachers Institute turned out 852 teachers for incomplete secondary schools. With the rapid development of the eight-year school, a greater number of teachers with higher education was needed; and to qualify former Teachers Institute graduates to conduct classes in the grade VIII, and to raise their qualifications, one-year courses were established at the Pedagogical Institute in 1963 to complement the training of teachers with higher education. The one-year courses are given in the evening, so that the teachers and students do not have to interrupt their daytime work.

During the 1962/63 and 1963/64 academic years, 248 teachers obtained diplomas of higher education which permit them to work in the upper grades at secondary schools. The total number of teachers with higher education trained only at the Pedagogical Institute during the period 1965-69 amounts to 1410.

The Mongolian State University is also engaged in the preparation of secondary school teachers of mathematics, physics, chemistry, biology and geography. The period of training is four years. Graduates are entitled to carry out research in institutes and laboratories.

The constant growth in the number of general education schools and of schoolchildren creates a very high demand for teacher training for schools, and new contingents have constantly to be trained to fill new vacancies throughout the country.

Curricula and syllabuses

Each type of educational establishment has its own curriculum and syllabuses. By "curriculum" is meant a list of subjects taught and their distribution by years, with an indication of the number of weekly and/or yearly periods. The "syllabus" for each subject matter includes detailed outlines of the topics to be covered during the allotted time; the enumeration of laboratory and practical work, if any; some methodological advice; and the aims and objectives of the course. Depending on the type of school, the same subject-matter may have different syllabuses, since the total number of periods earmarked for it does not necessarily coincide. Hence the number of syllabuses is very large, practically every subject in the various types of general education schools and tekhnikums requiring a separate syllabus.

The curricula and syllabuses for general education day and evening schools in general education are drawn up by the Educational Research Institute and approved by the Ministry of Education, while those for other educational establishments (tekhnikums, institutes etc.) are drawn up by the institutions themselves and approved by the Ministry.

Following the adoption of the School Law, all curricula and syllabuses for general education schools were revised, and some of them re-cast. In the 1964/65 academic year all the first five grades as well as the senior grades of eight- and

eleven-year schools began using the new curricula, whereas the senior grades at the seven- and ten-year schools still use the old ones.

The eleven-year school curriculum is at present being revised in view of the possible transfer to ten-year secondary education.

The curricula outlined in Tables 3-9, beginning on page 21, are those used in the 1964/65 academic year in the seven- and ten-year schools, eight- and eleven-year schools, evening schools for young workers and adults, and teacher training tekhnikums.

A comparison of the eight-year school curriculum with that for the first eight grades of the ten-year school shows that the general education subjects are identical, with a slight difference in the number of periods a week. The eight-year school pays more attention to physical and aesthetic education. For that purpose, music and singing lessons are extended to grades V, VI and VII, and the number of periods of physical education in the first four grades is doubled. The introduction of socially useful work from grade III onwards, of practical work on school plots during the academic years, of production practice during the summer vacation in grades V, VI and VII, and of a new subject, "Fundamentals of agriculture", in grade VIII, constitutes the basis for polytechnical training.

The ten-year school gives pupils a general secondary education and prepares them for entering higher educational establishments, whereas the eleven-year school provides pupils with a general secondary education and vocational training. Approximately two-thirds of class instruction is spent on general education and polytechnical subjects, and about one-third on productive training and productive work. Practical work at industrial enterprises, State farms and agricultural co-operatives is an important aspect of education and upbringing, and forms the principal basis of the pupils' moral training.

The curriculum for the eleven-year school is worked out in three versions: for schools with industrial training, with agricultural training, and with either agricultural or industrial training, in order to make it more flexible and adapt it to the pupils' environment. From the standpoint of general and polytechnical education, the three versions are identical. General technical subjects, production practice and productive work depend on the type of vocational training, and may vary even within the same school. The principal difference between the three versions is formal, and lies in the number of weeks spent on instruction and production practice and work.

The secondary evening school for young workers and adults caters for those wishing to continue their education from grades V through X. For those who have not completed the grade IV, or who did so long ago, grade IV is available in a number of evening schools. The curriculum includes the same subjects of general education as in day schools, except that the weekly load is just over half as much.

The curriculum of the teacher training tekhnikum is presented for the purpose of giving some idea of the curricula for tekhnikums in general, and for primary teacher training in particular. An analysis of the curriculum shows the very close connexion between general education and professional training. The subjects taught in the

Table 3. SEVEN- AND TEN-YEAR SCHOOL CURRICULUM
(time allocation in periods per week)

Approved by the Ministry of Education on 20 August 1964
for the 1964/65 academic year

Subject	Grade									
	I	II	III	IV	V	VI	VII	VIII	IX	X
Mongolian language	14	14	12	9	6	6	4	2	2	1
Literature	-	-	-	-	2	2	2	4	4	4
Foreign languages (Russian)	-	-	2	3	4	4	4	4	4	4
Arithmetic	6	6	6	6	6	4/0	-	-	-	-
Algebra	-	-	-	-	-	0/4	4	4/3	2	2
Geometry	-	-	-	-	-	2	2	2/3	2	2
Trigonometry	-	-	-	-	-	-	-	-	2	2
Physics	-	-	-	-	-	2	3	3/4	4	5
Astronomy	-	-	-	-	-	-	-	-	-	1
History of the MPR	-	-	-	2	-	-	-	-	-	3
General history	-	-	-	-	2	2	2/0	4	4	-
Constitution of the MPR	-	-	-	-	-	-	1/3	-	-	-
Social science	-	-	-	-	-	-	-	-	-	2
Nature study	-	-	-	3	-	-	-	-	-	-
Botany	-	-	-	-	3	-	-	-	-	-
Zoology	-	-	-	-	-	2	2	-	-	-
Anatomy and physiology	-	-	-	-	-	-	-	2	-	-
Darwinism	-	-	-	-	-	-	-	-	1	-
Chemistry	-	-	-	-	-	-	2	2	3	4
Geography of the MPR	-	-	-	-	-	-	2	-	-	-
Physical geography	-	-	-	-	3	2/3	-	-	-	-
Economic geography	-	-	-	-	-	-	-	2	2	-
Technical drawing	-	-	-	-	-	-	1	1	1	1
Drawing	1	1	1	1	1	1	-	-	-	-
Music and singing	1	1	1	1	-	-	-	-	-	-
Physical education	1	1	1	1	2	2	2	2	2	2
Manual training	1	1	1	1	-	-	-	-	-	-
Technical training in wood and metal workshops	-	-	-	-	2	2	2	-	-	-
Agrotechnics	-	-	-	-	-	-	-	1	-	-
Zootechnics	-	-	-	-	-	-	-	-	1	-
Machine operation	-	-	-	-	-	-	-	1	1	-
Electrical engineering	-	-	-	-	-	-	-	-	-	1
TOTAL:	24	24	24	27	31	31/32	33	34	35	34

Table 4. EIGHT-YEAR SCHOOL CURRICULUM
(time allocation in periods per week)

Approved by the Ministry of Education on 2 December 1963
for the 1964/65 academic year

Subject		Grade							
		I	II	III	IV	V	VI	VII	VIII
1. Mongolian language		12	12	12	9	6	5	5	3
2. Literature		-	-	-	-	2	2	2	3
3. Mathematics		6	6	6	6	6	6	6	5
4. History and Constitution of the MPR		-	-	-	-	2	2	2	3
5. Nature study		-	-	-	3	-	-	-	-
6. Biology		-	-	-	-	2	2	2	2
7. Geography		-	-	-	-	2	2	2	2
8. Physics		-	-	-	-	-	2	2	3
9. Chemistry		-	-	-	-	-	-	2	2
10. Technical drawing		-	-	-	-	-	-	1	1
11. Foreign language (Russian)		-	-	2	3	4	4	4	3
12. Drawing		1	1	1	1	1	1	-	-
13. Music and singing		1	1	1	1	1	1	1	-
14. Physical education		2	2	2	2	2	2	2	2
15. Manual and technical training		1	1	1	1	2	2	2	3
16. Practical work on school plots		-	-	-	-	1	1	1	-
17. Fundamentals of agriculture		-	-	-	-	-	-	-	2
18. Socially useful work		-	-	2	2	2	2	2	2
		23	23	27	28	33	34	36	36
19. Production practice (after the school-year is over)	(in days)	-	-	-	-	6	6	12	-
	(in hours)	-	-	-	-	18	24	48	-

Table 5. ELEVEN-YEAR SCHOOL CURRICULUM
(time allocation in periods per week and per year)

Version 1 for schools with industrial specialities,
Approved by the Ministry of Education

Subject		Grade				
		IX	X	XI	Total	Total per year
1. Mongolian language and literature		4	5/4	4/5	13	455
2. Mathematics		5	5	5/4	14.5	507
3. History		3/4	3	3	9.5	332
4. Social science		-	-	2	2	70
5. Geography		2	2	-	4	140
6. Biology		2	-	-	2	70
7. Physics		4/3	3/4	3	10	350
8. Astronomy		-	-	1	1	35
9. Chemistry		2	3/2	2/3	7	245
10. Foreign language (Russian)		2	2/3	3/2	7	245
11. Technical drawing		2	-	-	2	70
12. Physical education		2	2	1	5	175
Total number of periods for general subjects		28	25	24	-	2,694
13. General technical subjects and production training		8	10	12	30	1,050
Total number of periods per week		36	35	36	-	3,744
14. Production practice and productive work	in days	24	24	-	-	-
	in hours	144	144	-	-	288
Grand total number of periods:		-	-	-	-	4,032
15. Optional subjects		2	2	2	6	210

Table 6. ELEVEN-YEAR SCHOOL CURRICULUM
(time allocation in periods per week and per year)

Version 2 for schools with agricultural specialities
Approved by the Ministry of Education

Subject	Grade				
	IX	X	XI	Total	Total per year
1. Mongolian language and literature	5	5	5	15	460
2. Mathematics	6	6/5	5	16.5	505
3. History	4	3/4	4/3	11	336
4. Social science	-	-	2	2	64
5. Geography	3/2	2	-	4.5	135
6. Biology	2	-	-	2	60
7. Physics	4	4	3/4	11.5	352
8. Astronomy	-	-	1	1	32
9. Chemistry	2	3	3	8	240
10. Foreign language (Russian)	2	3	3	8	240
11. Technical drawing	1/2	1	-	2.5	75
12. Physical education	2	2	2/1	5.5	168
Total number of periods for general subjects	31	29	28/27	-	2,667
13. General technical subjects, production training	5	6	8	19	586
Total number of periods per week	36	35	36/35	-	3,253
14. Production practice) in days	54	54	18	-	-
and productive work) in hours	324	324	108	-	756
Grand total number of periods	-	-	-	-	4,009
15. Optional subjects	2	2	2	6	184

Table 7. ELEVEN-YEAR SCHOOL CURRICULUM
(time allocation in periods per week and per year)

Version 3 for schools with either industrial or agricultural specialities

Subject	Grade				
	IX	X	XI	Total	Total per year
1. Mongolian language and literature	4/5	5	5	14/15	464
2. Mathematics	6/5	5/6	5	16	512
3. History	4/3	3	4/3	10	320
4. Social science	-	-	2	2	64
5. Geography	2/3	2	-	4.5	144
6. Biology	2	-	-	2	64
7. Physics	4	4	3	11	352
8. Astronomy	-	-	1	1	32
9. Chemistry	2	3	3/2	7.5	240
10. Foreign language (Russian)	2	3	2/3	7.5	240
11. Technical drawing	2	1/0	-	2.5	80
12. Physical education	2	2	1	5	160
Total number of periods for general education per week	30	28	26/25	-	2,672
13. General technical subjects, production training	6	7	10	23	736
Total number of periods per week	36	35	36/35	-	3,408
14. Production practice) in days	42	42	18	-	-
and productive work) in hours	252	252	108	-	612
Grand total number of periods	-	-	-	-	4,020
15. Optional subjects	2	2	2	6	186

Table 8. CURRICULUM OF GENERAL EDUCATION EVENING SCHOOL FOR YOUNG WORKERS AND ADULTS
(time allocation in periods per week)

Approved by the Ministry of Education on 3 September 1964
for the 1964/65 academic year

Subject	Grade						
	IV	V	VI	VII	VIII	IX	X
1. Mongolian language	7	2	3	3	-	-	-
2. Literature	-	1	1	1	2	2	2
3. Arithmetic	5	6	-	-	-	-	-
4. Algebra	-	-	2	2	2	2	2/1
5. Geometry	-	-	2	2	2	2	2
6. Trigonometry	-	-	-	-	-	1	1
7. Physics	-	-	1	2/1	2	2	3
8. Astronomy	-	-	-	-	-	-	0/1
9. History	2	1	1/2	-	2/1	1	2/1
10. Constitution of the MPR	-	-	-	1	-	-	-
11. Social science	-	-	-	-	-	-	1/2
12. Foreign language (Russian)	-	2	2	2	1	2	2
13. Nature study	2	-	-	-	-	-	-
14. Botany	-	2	-	-	-	-	-
15. Zoology	-	-	2	-	-	-	-
16. Anatomy and physiology	-	-	-	-	1	-	-
17. Darwinism	-	-	-	-	-	1	-
18. Chemistry	-	-	-	1	1/2	2	2
19. Geography	-	2	2/1	1/2	2	-	-
20. Technical drawing	-	-	-	1	1	1	-
Total number of weekly periods :	16	16	16	16	16	16	17

Table 9. CURRICULUM FOR TEACHER TRAINING TEKHNIKUMS
(time allocation in periods per week)

Approved on 4 August 1964 for the 1964/65 academic year
Speciality : primary school teachers

Subject	Course (year)						Total	Examinations (terms)
	course I		course II		course III			
	1st term 14 wks.	2nd term 20 wks.	3rd term 14 wks.	4th term 18 wks.	5th term 17 wks.	6th term 15 wks.		
1. Mongolian language, and methodology of teaching it								
(a) Mongolian language	2(28)	2(40)	2(28)	2(36)	2(34)	2(30)	196	2.4
(b) Methodology of teaching Mongolian		2(40)	2(28)	2(36)	2(34)	1(15)	153	5
(c) Penmanship, and methodology of teaching it	1(14)	1(20)	1(14)	1(18)	1(17)	-	83	-
2. Literature								
(a) General literature	4(56)	2(40)	-	-	-	-	96	-
(b) Mongolian and children's literature	-	-	1(14)	1(18)	2(34)	2(30)	96	-
3. Mathematics and methodology of teaching it								
(a) Arithmetic	2(28)	2(40)	2(28)	2(36)	2(34)	2(30)	196	2.4
(b) Methodology of teaching arithmetic		2(40)	2(28)	2(36)	2(34)	1(15)	153	5
(c) Algebra	3(42)	2(40)	2(28)	-	-	-	110	-
(d) Geometry and trigonometry	2(28)	2(40)	2(28)	2(36)	2(34)	-	166	-
4. Physics (with astronomy)	4(56)	3(60)	2(28)	2(36)	-	-	180	4
5. History								
(a) History of the MPR	-	-	2(28)	2(36)	-	-	64	-
(b) Social science	-	-	-	-	3(51)	4(60)	111	-
6. Geography								
(a) Economic geography of foreign countries	2(28)	2(40)	-	-	-	-	68	-
(b) Geography of the MPR	-	-	3(42)	3(54)	-	-	96	-
7. Biology and methodology of teaching it								
(a) Anatomy and physiology	2(28)	2(40)	-	-	-	-	68	-
(b) Fundamental of biology	-	-	2(28)	2(36)	-	-	64	-
(c) Methodology of teaching nature study	-	1(20)	2(28)	2(36)	-	-	84	4

Table 9. CURRICULUM FOR TEACHER TRAINING TEKHNIKUMS (Cont'd)
(time allocation in periods per week)

Approved on 4 August 1964 for the 1964/65 academic year
Speciality: primary school teachers

Subject	Course (year)						Total	Examinations (terms)
	course I		course II		course III			
	1st term 14 wks.	2nd term 20 wks.	3rd term 14 wks.	4th term 18 wks.	5th term 17 wks.	6th term 15 wks.		
8. Fundamentals of agriculture	2(28)	1(20)	-	-	-	-	48	-
9. Chemistry and minerology	2(28)	2(40)	2(28)	2(36)	-	-	132	-
10. Foreign language (Russian)	3(42)	2(40)	2(28)	2(36)	2(34)	2(30)	210	6
11. Theory of education (pedagogy)	2(28)	2(40)	1(14)	1(18)	2(34)	2(30)	164	-
12. General and child psychology	-	-	1(14)	1(18)	2(34)	2(30)	96	-
13. School hygiene	-	-	-	-	2(34)	2(30)	64	-
14. Methodology of education work with children	-	-	-	-	2(34)	-	-	-
15. Music and singing, and method.of teaching them	2(28)	2(40)	2(28)	2(36)	1(17)	1(15)	164	-
16. Drawing and manual training,and method. of teaching them								
(a) Drawing, and method. of teaching it	1(14)	1(20)	1(14)	1(18)	1(17)	1(15)	98	-
(b) Manual training, and methodology of teaching it	1(14)	1(20)	1(14)	1(18)	2(34)	2(30)	130	-
(c) Fundamentals of domestic science	-	-	-	-	2(34)	2(30)	64	-
17. Physical education, and method. of teaching it	1(14)	1(20)	1(14)	2(36)	2(34)	2(30)	148	-
18. Teaching practice	-	1(20)	1(14)	2(36)	2(34)	2(30)	134	-
Total periods	36(504)	36(720)	37(518)	37(666)	36(612)	30(450)	3,470	-

State examinations: 1. Social science (oral)
2. Theory of education (pedagogy) (oral)
3. Mongolian, and methodology of teaching it (oral and written)
4. Arithmetic, and methodology of teaching it (oral and written)

first four grades - Mongolian language, arithmetic, nature study, music and singing, drawing, manual training and physical education are found in the teacher-training curriculum together with the methodology for teaching them. The prospective teacher should know not only the content of the subjects, that is, what to teach, but also the method of instruction, that is, how to teach and how to bring up the child. The latter objective is achieved by studying the methodology of teaching the subject-matter and that of educational work with children, theory of education (pedagogy), general and child psychology, and school hygiene, and by conducting teaching practice.

The all-round training of tekhnikum students is characteristic of all secondary specialized schools. The analysis of syllabuses for all types of education, hence the content of education, could be the object of a special survey, and is therefore not discussed in the present paper.

School calendar and examinations

All types of schools open on 1 September (if not a Sunday). The academic year in the eight-year school as well as in evening and seven- and ten-year schools is divided into four parts : part I - from 1 September to 5 November (56 school days), part II - from 10 November to 29 December (43 school days), part III - from 10 January to 24 March (64 school days), and part IV - from 1 April to 20 May (42 school days) for the first four grades and to 26 May (48 school days) for the other grades. The number of school weeks is 34 in the primary grades (I-IV), and 35 in other grades (with the possible exception of grade XI).

Vacations last from 6 to 9 November (4 days for the autumn vacation), from 30 December to 9 January (11 days for the winter vacation), and from 25 to 31 March (7 days for the spring vacation). The length of the summer vacation depends on the form and type of school. It begins on 21 May for grades I-III of all schools, on 25 May for grade IV, on 8 June for grades V, VI and VII, and on 15 June for grade VIII.

For grades IX, X and XI of the eleven-year school, the academic year consists of two terms and lasts 39 weeks in grades IX and X, and 35 weeks in grade XI. The distribution of weeks between school studies and production practice depends upon the version of the curriculum used in the school. The table on the next page shows the number of weeks for regular school studies and production practice.

The pupils in grades I, II and III are promoted to the next grade on the basis of annual evaluation, without any examination. If a pupil does not meet the requirements by the end of the year in at least one of the major subjects (Mongolian and arithmetic), he has to repeat the grade. The pupils in grade IV take written State examinations in Mongolian and arithmetic from 21 to 24 May. Those in grades V, VI and VII take written and oral examinations in mathematics and the mother tongue from 27 to 31 May. After this, grades V and VI have one week's production practice from 1 to 7 June (3 hours a day in grade V and 4 hours a day in grade VI) while grade VII has two weeks' production practice (4 hours a day) from 1 to 14 June. The pupils in grade VIII take written State examinations in Mongolian and algebra with arithmetic, and an oral examination in geometry and Russian from 27 May to 14 June. In the eleven-year school regular classes last till 26 May. From 27 to 31 May, the grade IX pupils take

Number of weeks for school studies and production practice

Version of curriculum / Forms	Version I		Version II		Version III		
	School weeks	Production practice weeks	School weeks	Production practice weeks	School weeks	Production practice weeks	Total number of weeks
9	35	4 (summer)	30	4 (summer) 5 (autumn, spring)	32	4 (summer) 3 (during the year)	39
10	35	4 (summer)	30	4 (summer) 5 (autumn, spring)	32	4 (summer) 3 (during the year)	39
11	35	4 (summer)	32	3 (during the year)	32	3 (during the year)	35

written examinations in literature and algebra, and grade X pupils take oral examinations in literature and written examinations in algebra. The pupils have four weeks of production practice (6 hours a day) after the examinations are over.

Pupils successful in the examinations are promoted to the next grade. In the event of failure, they are allowed to take the examination again before the beginning of the new academic year. If they pass, they join the next grade, but if they fail again, the grade must be repeated. It sometimes happens that the pupil does not do well during the year in a subject not included in the examination list. In that case, he is given extra assignments for the summer, and at the end of August submits an account of the work done. If the results are considered to meet requirements, promotion follows; if not, the grade is repeated.

Pupils in grade XI finish regular classes on the 26 May and begin preparing for the State examinations which take place from 1 to 30 June and consists of written examinations in literature and algebra with geometry, and oral examinations in physics, chemistry, Russian, and history of the Mongolian People's Republic with social science. The qualification rating examination for the trade or speciality trained in is taken in the middle of May, a fortnight before taking the final State examinations.

Textbooks

Textbooks for all types of educational establishment are published in the vernacular. Most of them are written by experienced and qualified local authors. Some textbooks, however, especially for secondary general education schools, secondary special schools and higher educational institutions, are translated from foreign languages. About 130 textbook titles are used in primary and secondary schools alone.

Nevertheless, the total number of textbooks published annually cannot meet the ever-increasing needs of the rapidly developing system of education, due to the lack of adequate printing facilities, and of paper and cardboard. The only printing house in the country engaged in school textbook production, the Polygraphical Combine, cannot cope with the tasks of printing newspapers, journals, magazines, school textbooks and other publications. As the printing house is permanently overloaded with work, some school textbook manuscripts await their turn for two or three years, the result being that they tend to lag behind the requirements of the curricula, and need re-editing and re-writing before they are published.

The Ministry of Education had been planning to set up a printing house to produce school textbooks and visual aids, but the State budget did not permit them to do so. External financial and technical assistance in textbook production is still urgently needed in order to provide books for compulsory eight-year education.

Administration of education

As stated above, nurseries and kindergartens may be of two types : (1) supported and financed by the State and (2) by industrial enterprises or agricultural co-operatives. State-supported nurseries come under the Ministry of Health, and kindergartens under the Ministry of Education. The Ministries are also responsible for training the staff for pre-school establishments.

Primary, seven- and eight-year schools, ten- and eleven-year schools and evening schools for young workers and adults come under the Ministry of Education, which is also responsible for textbooks, curricula, syllabuses and examinations, and which organizes and supervises teacher-training in pre-school and primary-school teacher-training tekhnikums and the Pedagogical Institute.

The Ministry of Education comprises separate departments for pre-school education, school education, finance and planning, equipment, supplies and school construction, and publications. In addition, there is a Bureau of personnel and a Ministry Board. The latter is headed by the Minister, and on the basis of collective discussions makes decisions on internal matters such as approval of curricula and syllabuses, school textbooks and publication plans. An Inspector-General, attached to the Minister's office, supervises the fulfilment and execution of the State laws on education and the orders issued and signed by the Minister. The Minister also has two deputies. One of these supervises and is responsible for the work of the Departments of Finance and Planning and of Equipment, Supplies and School Construction. The other directs the work of the Departments of Pre-School Education, School Education and of Publication. The staff of the Departments of Pre-School and School Education includes inspectors who supervise the methodological work of the local departments of education responsible to the Ministry for the administration of education and the execution of educational plans in their areas.

The tekhnikums and higher educational establishments come under the corresponding ministries and committees, and are financed by them. The whole of the

methodological work, however, as well as the sanctioning of textbooks, curricula and syllabuses, is done by the Ministry of Education. Vocational schools for agricultural and industrial workers are administered by the Committee for Labour and Wages attached to the Council of Ministers.

CHAPTER II

QUANTITATIVE DEVELOPMENT OF EDUCATION

Planning in education

Planning in the field of education began in 1921, when a certain percentage of the national budget was earmarked for education and the first government school established. From 1941 on, the annual plans of national economic development included the educational chapter, and education subsequently took an important part in the consecutive medium-term plans.

In the First and Second Five-Year Plans (1948-1952 and 1953-1957) the generalization of 4-year compulsory education and the eradication of illiteracy occupied a prominent place. Since then, most of the population aged 9-50 have become literate.

The Three-Year Plan

The basic aims of the 1958-1960 Three-Year Plan were to continue the development of general primary education and the expansion of general education facilities through the introduction of seven-year compulsory education in towns, "Aimak" centres and larger inhabited points. Specifically, the three-year plan envisaged :

- an 8.8% increase in the overall enrolment in general education;
- a 100% increase in the number of secondary school graduates;
- a 56% increase in the number of 7th year graduates;
- a 23% increase in the number of evening schools for young workers and adults and an almost 100% increase in enrolment;
- an increase in the number of kindergartens to 50, and a 150% increase in the number of children attending them.

During this period, the original concept of establishing a larger number of small and scattered schools to accommodate all children was abandoned as being unprofitable and a process of consolidation of schools took place. In executing the plan, 23 primary schools and 19 seven-year and eight-year schools were established.

As to the number of pupils in general education day schools, 1960 enrolment amounted to 107,209 instead of the 103,230 pupils planned, or 3.8% above the planned figure and 13% above the 1957 figure. Actual enrolment exceeded the planned figure by 6.4% in grade I, 21.1% in grade V and 1.2% in grade VIII.

The results of forty years of systematic expansion of education are best illustrated by the educational attainment of the population aged 12 years and over, as registered by the 1963 and 1969 censuses, and shown in Table 10.

Table 10. Educational attainment of population aged 12 years and over, according to 1963 census and 1969 census

Educational level	1963 Census		1969 Census		Intercensal increase (%)
	Number	%	Number	%	
Total population aged 12 and over	672,015	100.0	749,281	100.0	11
Total with school education	244,200	36.3	400,827	53.5	64
- with higher education	11,574	1.7	23,271	3.1	101
- with secondary specialized education	14,781	2.2	26,094	3.5	77
- completed 10-year school	13,214	2.0	31,513	4.2	138
- completed 7-year school	50,301	7.5	98,743	13.2	96
- completed 4-year school	154,330	22.9	221,206	29.5	43

Third Five-Year Plan

The aims of the Third Five-Year Plan (1961-65) can be summarized as follows :

Consolidation of the material basis of general education;

Extension of compulsory education to eight years' duration;

Reorganization of the educational system by combining schooling with productive work;

Further improvement of adult education by providing primary education to all adults without formal schooling;

Provision of general education facilities of some sort in all Somon centres.

The targets set above had been fulfilled or overfulfilled at the end of the Five-Year plan. The total number of schools increased from 419 in 1960 to 449 in 1965 with a total enrolment of 155,880. The enrolment of the general education schools increased by 123.4 per cent as compared with 1960. During the five years of the plan, 1,978 teachers were trained, registering an increase of 152.8 per cent in the number of teachers.

In the field of adult education, the number of general education evening schools increased from 49 to 97, and enrolments increased from 8,100 to 8,574.

To facilitate greater participation of women in political economic activities in bringing up their children, a number of nurseries and kindergartens were established in agricultural co-operatives and industrial enterprises. The relevant statistics were registered for the State-supported establishments in 1960 and 1965:

	1960	1965
No. of kindergartens	167	456
Children	10,410	25,863

The country is faced with a shortage of technical and high-level managerial and administrative staff, skilled workers and craftsmen. An analysis of the situation was made four years ago, and on the basis of a long-term perspective plan of economic and social development, a manpower programme was drawn up to meet the requirements for high and medium-level personnel up to 1970. In the field of higher and specialized secondary education, the Five-Year Plan was based on the proportions stipulated in this programme, as follows:

(a) Specialized secondary schools (tekhnikums)

Skilled and technician-level manpower requirements and their fulfilment were projected up to 1970, as follows:

	1960	1965	1970
Requirements	20,200	29,000	38,000
Existing manpower	10,620	8,960	16,600
Output from training	-	10,000	13,940
Total available	10,620	18,960	30,540
Deficit	9,580	10,040	7,460
Per cent fulfilment	52%	65%	80%

The number of specialized schools and their enrolment and output are shown below for 1960 and 1965:

	1960	1965
Number of schools	14	17
Total enrolment	8,630	9,214
First-year enrolment	2,900	2,524
Graduates	1,225	2,203

(b) Higher education

High-level manpower requirements and their fulfilment were projected up to 1970 as follows:

	1960	1965	1970
Requirements	9,150	15,070	20,500
Existing manpower	4,100	3,760	8,400
Output from training		5,100	8,830
Total available	4,100	8,860	17,230
Deficit	5,050	6,210	3,270
Per cent fulfilment	45%	60%	84%

The following enrolments were recorded in 1960 and 1965:

	1960	1965
Total enrolment	6,910	10,677
First-year enrolment	2,250	2,083
Graduates	1,080	2,141

It was also decided to convert the Medical Faculty of the University into a Medical Institute and to create a separate Polytechnical Institute. The Medical Institute was set up in 1961, but the creation of the Polytechnical Institute had to be postponed and as already mentioned, seems not to be feasible without outside assistance.

Past trends and present situation

a) General education

General education in Mongolia has registered a remarkable quantitative increase during the past four decades, from one school with 40 pupils in 1921 to 484 schools with 219,875 pupils during the school-year 1969-70. The average annual rate of growth, extremely steep at the beginning of the period, is slowing down as the system expands, but is still high.

Table 11 shows the growth of the general education system since 1921. It is interesting to note that the number of schools increased rapidly up to 1950, after which, following a process of consolidation of smaller schools, it remained at an almost constant level, to rise again beginning in 1965.

Table 11. Number of schools, teachers and pupils in general education (including evening schools), 1921-1969

Year	Schools	Teachers	Pupils
1921	1	...	40
1930	122	...	6,775
1940	331	952	23,341
1952	426	2,983	63,536
1960	419	3,473	115,326
1961	429	4,300	123,614
1962	427	4,373	133,908
1963	428	4,815	146,459
1965	449	5,721	[1] 155,880
1968	467	7,464	[1] 196,632
1969	484	7,928	219,875

1. Not including evening schools.

The continuous increase in the number of teachers and pupils since 1950 was accomplished through the introduction of double shifts in many schools, the provision of boarding facilities for children from rural areas whose families may still be leading the nomadic way of life, and the recruitment into the teaching profession of a number of teachers not fully qualified (grade X graduates with only a brief period of training).

A further rapid growth of the general education system may be anticipated in consideration of the high birth rate and declining mortality rate (it is estimated that at present around 3,000 children reach the school entry-age of 8 each year), and of the proposed extension of compulsory education from four to eight years which is being implemented progressively.

b) Pre-school education

Although pre-school education does not form part of the regular school system, the considerable growth of nurseries and kindergartens during the past decades must be noted in order to have a comprehensive view of the development of the system. As shown in Table 12, enrolment in nurseries increased from 285 in 1947 to 15,645 in 1970, and in kindergartens from 145 in 1940 to 29,825 in 1969.

c) Primary education

In 1969-70, there were 234 four-year schools (with 40,347 pupils, or approximately 170 pupils per school) and 198 eight-year and 52 ten-year secondary schools. Despite the fact that primary school attendance had already reached a high level, enrolment between 1961/1962 and 1969/1970 showed a rise of 80.5 % (see Table 13 A). The increase in the number of teachers is indicated in Table 13 B.

Table 12. Number of pre-school establishments and children enrolled

	Nurseries		Kindergartens	
Year	Number	Enrolment	Number	Enrolment
1940	5	...	6	145
1947	10	285	36	816
1952	27	790	64	2,309
1957	57	2,305	96	5,475
1958	78	3,570	107	5,988
1959	...	...	130	7,349
1960	99	4,670	160	9,738
1961	113	6,185	202	12,225
1962	138	7,988	228	13,941
1963	115	8,692	315	18,436
1965	175	8,693	456	25,863
1968	301	14,182	531	29,959
1969	337	15,005	527	29,825
1970	355	15,645	...	...

Table 13A. Enrolment by level of education 1961/62 - 1963/64 and 1969/70

Year	Total	Total I - X	Primary I - IV	Incomplete secondary V - VII	Secondary VIII - X	Evening schools I - X
1961/62	123,614	114,837	76,123	31,345	7,369	8,777
1962/63	133,908	123,321	80,939	33,808	8,574	10,587
1963/64	146,519	135,843	88,859	36,955	10,029	10,676
1969/70	219,875	211,764	137,420	60,344	14,000	8,111
Increase %						
1961-69	77.9	84.4	80.5	92.5	90.0	(-7.6)

Table 13B. Number of teachers

Year	Planned	Actual	Pupils	Pupil/teacher ratio
		Grades I - IV		
1961/62	2,340	2,408	76,123	31.6
1962/63	2,550	2,507	80,939	32.3
1963/64	2,745	2,694	88,859	33.0
1969/70	4,240	4,362	137,420	31.5
		Grades I - X		
1965	6,153	5,721	155,880	...
1968	7,380	7,464	196,632	...
1969	7,800	7,928	211,764	...

The distribution of educational facilities in the Mongolian People's Republic is presented in Tables 14 and 15, showing the situation in 1969/70 and 1960/61 respectively. The comparison of the tables shows the uniform increase of enrolment in all the administrative subdivisions of the country. Enrolment in primary schools fluctuates between the Aimaks from 7.9 to over 12% of the corresponding population as against an average of 8.7 or over 90% of the respective age-group for the country as a whole, pointing to high participation rates for schools in the rural areas. Girls represent around 49% of primary school pupils.

Table 14. Population (1963), schools and enrolment in general education 1969/70, in each Aimak

Aimak	Population (000s) (1963)	Grades I - X Total enrolment	Grades I - IV		Grades V - X	
			Schools	Pupils	Schools	Pupils
Total:	1,018.0	211,764	234	137,420	250	74,344
Arkhangai	63.9	13,702	14	9,206	16	4,496
Bayan-Ulgy	47.8	10,438	14	7,028	13	3,410
Bayan-Khongor	45.8	8,891	15	6,026	11	2,865
Bulgan	33.2	7,078	14	4,581	8	2,497
Gobi-Altai	42.9	8,888	13	5,831	11	3,057
Eastern Gobi	27.5	5,305	11	3,533	7	1,772
Eastern	36.1	7,322	11	4,616	12	2,706
Middle Gobi	28.8	4,992	12	3,291	6	1,701
Dzabkhan	60.0	12,588	14	8,623	17	3,965
Uver-Khangai	56.5	10,800	17	7,648	13	3,162
Southern Gobi	22.8	4,430	11	2,999	6	1,431
Sukhe-Bator	32.0	6,797	8	4,423	9	2,374
Selenga 1/	45.0	11,391	7	7,196	19	4,185
Central	52.6	10,423	14	6,933	17	3,490
Ubsumur	51.8	11,033	10	7,332	15	3,701
Kobdo	47.3	10,680	8	6,743	12	3,937
Khubsugul	63.6	12,627	15	8,836	15	3,791
Khentei	36.8	7,137	15	4,627	10	2,510
Ulan Bator 2/	223.6	47,252	11	27,948	33	19,307

1/ Including the town of Darkhan

2/ Including Nalaikha

Table 15. Enrolment in schools of general education level in each Aimak, 1960/61

Aimak	Total	Grades I-IV	Grades V-VII	Grades VIII-X
Total	107,209	72,726	27,540	6,943
Arkhangai	7,344	5,146	1,776	422
Bayan-Ulgy	5,830	4,217	1,271	342
Bayan-Khongor	4,881	3,579	1,052	250
Bulgan	3,857	2,604	1,008	245
Gobi-Altai	5,304	3,931	1,127	246
Eastern Gobi	2,214	1,619	491	104
Eastern	3,569	2,407	866	296
Middle Gobi	2,778	1,991	615	172
Dzabkhan	6,421	4,762	1,338	321
Uver-Khangai	5,645	4,162	1,174	309
Southern Gobi	2,008	1,423	442	143
Sukhe-Bator	3,716	2,706	823	187
Selenga	3,674	2,308	1,051	315
Central	4,933	3,545	1,193	195
Ubsunur	6,421	4,421	1,621	379
Kobdo	6,053	4,145	1,529	379
Khubsugul	3,596	4,855	1,690	411
Khentei	3,635	2,608	859	168
Ulan Bator City	21,970	12,297	7,614	2,059

The retention rates are high. Since compulsory education is fully enforced, all children enter school at the beginning of the school year in which they reach the age of 8. There seems to be no serious problem of over-age children or premature drop-out.

The following figures show the distribution of primary school pupils by grade from 1961/62 to 1963/64; and 1969/70;

Grade	1961/62	1962/63	1963/64	1969/70
I	21,743	22,717	26,509	36,972
II	19,129	20,814	22,111	36,743
III	17,949	18,874	20,510	33,767
IV	17,302	18,520	19,729	29,938

It emerges from the table that enrolment in the third grade in 1963/64 represented 94% of first-grade enrolment in 1961/62.

d) Incomplete and complete secondary schools

Table 14 A shows the number of pupils enrolled in the lower secondary cycle (grades 5-7), both in incomplete and complete secondary schools, as well as enrolment in the upper secondary cycle (grades VIII-X) from 1961/62 to 1963/64, and 1969/70.

Enrolment in the lower secondary cycle in 1963/64 totalled 36,955 or 27% of the total day-school enrolment, and represented over 70% of the estimated population in the corresponding age-group. The number of pupils at this level registered an increase from 1961/62 to 1969/70 of 92.5%. A further rapid growth of this level may be anticipated with the successive implementation of the extended period of compulsory education.

Enrolment in the upper secondary cycle, accounted in 1963 for about 20% of the estimated population in the corresponding age-group and 8% of total day-school enrolment. The increase over the period 1961-1969 was 90%. The following figures show the number of teachers in grades V-X, the respective enrolment and pupil-teacher ratio.

Year	Teachers	Pupils	Pupil/teacher ratio
1961/62	1,892	38,714	20.5
1962/63	1,866	42,382	22.6
1963/64	2,121	46,924	22.1
1969/70	3,566	74,344	20.8

Facilities for post-primary general education are widely distributed throughout the country, making this type of education readily accessible to the large numbers of children scattered over wide rural areas. From Table 16 it may be seen that, out of 250 eight- and ten-year schools, only 31 were located in the capital city of Ulan Bator. (Table 16 appears on page 42).

Table 16. Number of schools, by Aimaks, 1969/70

Aimak	Type of school		
	4-year	8-year	10-year
All schools:	234	198	52
Arkhangai	14	13	3
Bayan-Ulgy	14	11	2
Bayan-Khongor	15	9	2
Bulgan	14	7	11
Gobi-Altai	13	10	1
Eastern Gobi	11	6	1
Eastern	11	10	2
Middle Gobi	12	5	1
Dzabkhan	14	14	3
Uver-Khangai	17	11	2
Southern Gobi	11	5	1
Sukhe Bator	8	8	1
Selenga	6	13	3
Central	14	15	2
Ubsunur	10	13	2
Kobdo	8	10	2
Kubsugul	15	12	3
Khentei	15	8	2
Towns:			
Darkhan	1	1	2
Nalaikha	1	1	1
Ulan Bator City	10	16	15

e) Vocational and professional training

(1) Specialized secondary schools (tekhnikums)

Table 17 shows the growth of secondary specialized education from no schools in 1921, and two establishments with 75 students in 1924, to 19 establishments with 10,966 students in 1969/70, while Table 19 presents the number of students enrolled by type of establishment and grade, for the years 1962/63, 1963/64, 1964/65 and 1969/70.

Table 17. Secondary specialized schools (tekhnikums)
1921-1964, and 1969

Year	Schools	Enrolment
1921	-	-
1924	2	75
1930	3	145
1940	7	1,332
1947	12	1,949
1952	14	[1] 3,100
1957	14	[1] 5,916
1958	14	[1] 7,084
1959	13	[1] 7,534
1960	15	[1] 8,811
1961	16	[1] 9,000
1962	19	[1] 10,488
1963	20	[1] 10,664
1964/65	20	9,340
1969/70	19	10,966

1. Including students abroad.

In 1962/63, enrolment in secondary specialized schools represented 18% of the estimated population in the corresponding age-group. The rate of growth of enrolment shows a slowdown in recent years due to the planned adjustment of training in the respective specialities to labour market requirements. For instance, for the school year 1964-65, an increase in enrolment was planned only in the Polytekhnikum, Construction tekhnikum, teacher training tekhnikums and Automobile Transport Tekhnikum. Preliminary figures for 1964/65 show that in the four branches enrolment in the first year corresponded to the planned targets but, due to drop-outs, the overall enrolment figures are lower than expected.

Table 18. Students in secondary specialized schools (tekhnikums) by branch and year of study 1962/63 - 1964/65, and 1969/70

P = Plan
A = Actual

Year		Enrolment				Graduates
		Total	Year of study VIII	IX	X	XI	
Polytekhnikum							
1962/63		792	350	263	117	62	39
1963/64		1,023	345	357	218	103	50
1964/65	P	(1,170)	(290)	(327)	(343)	(210)	(99)
	A	1,073	390	279	309	195	...
1969/70	P	(894)	(280)	...	...	...	...
	A	831	220	235	285	91	186 (in 1969)
Law Tekhnikum							
1962/63		207	64	76	67	-	72
1963/64		218	80	61	77	-	65
1964/65	P	(135)	...	(76)	(59)	-	(75)
	A	137	...	75	62	-	...
1969/70	P	(219)	(75)	...	...	...	...
	A	216	88	62	67	-	47 (in 1969)
Commerce Tekhnikum							
1962/63		1,069	190	263	344	272	-
1963/64		876	192	172	247	265	323
1964/65	P	(678)	(120)	(181)	(166)	(211)	(283)
	A	628	120	168	139	201	...
1969/70	P	(626)	(235)	...	...	...	...
	A	629	235	184	210	...	167 (in 1969)
Construction Tekhnikum							
1962/63		937	331	277	262	67	68
1963/64		742	253	278	211	-	328
1964/65	P	(887)	(180)	(240)	(268)	(199)	...
	A	748	182	179	201	186	...
1969/70	P	(850)	(300)	...	...	...	155 (in 1969)
	A	842	305	233	150	154	3 (in 1969)

Table 18. (Cont'd)

Year		Enrolment: Total	Year of study: VIII	IX	X	XI	Graduates
		Medical Tekhnikums (2 establishments)					
1962/63		1,216	416	335	277	188	248
1963/64		1,194	365	376	304	149	288
1964/65	P	(1,189)	(260)	(346)	(361)	(222)	(215)
	A	1,167	278	345	338	206	...
1969/70	P	(1,482)	(430)	...	...	...	...
	A	1,470	437	392	393	248	385 (in 1969)
		Teacher training tekhnikums (3 establishments)[1/]					
1962/63		1,077	383	294	190	210	241
1963/64		1,173	376	361	257	179	200
1964/65	P	(1,360)	(410)	(356)	(347)	(247)	(174)
	A	1,121	441	334	329	17	...
1969/70	P	(1,662)	405	...	...	...	...
	A	1,607	490	520	528	69	453 (in 1969)
		Pre-school Teacher Training Tekhnikum					
1962/63		328	170	105	53	-	31
1963/64		486	236	156	94	-	46
1964/65	P	(584)	(210)	(224)	(150)	-	(91)
	A	552	210	207	135	-	...
1969/70	P	(643)	(225)	...	...	...	...
	A	632	229	219	184	-	300 (in 1969)
		Automobile Transport Tekhnikum					
1962/63		246	90	60	43	53	40
1963/64		271	100	80	55	36	...
1964/65	P	(284)	(60)	(94)	(77)	(53)	(35)
	A	241	60	68	64	49	...
1969/70		...	...	...	...	...	...

1/ A Correspondence Teacher Training Tekhnikum was established in 1964/65 with a planned enrolment of 160 and an actual one of 120 in the first year.

Table 18. (Cont'd)

Year		Enrolment: Total	Year of study: VIII	IX	X	XI	Graduates
			Railway Tekhnikum				
1962/63		582	105	141	239	97	119
1963/64		504	170	96	135	105	217
1964/65	P	(447)	(90)	(160)	(92)	(105)	(124)
	A	472	150	112	113	97	...
1969/70	P	(1,267)	(370)	...	...	...	...
	A	1,314	388	280	240	247	212 (in 1969)
			Financial Tekhnikum				
1962/63		1,054	303	302	206	243	196
1963/64		1,043	348	356	254	185	222
1964/65	P	(1,000)	(180)	(330)	(247)	(243)	(179)
	A	853	180	221	213	239	...
1969/70	P	(1,025)	(290)	...	...	...	...
	A	1,019	306	260	257	196	137 (in 1969)
			Evening Construction Tekhnikum				
1962/63		177	90	87	...	...	...
1963/64		174	90	84	...	...	87
1964/65	P	(263)	(150)	(113)	...	...	(81)
	A	183	70	113	...	...	...
1969/70	(See above: now one of the departments of the Construction Tekhnikum)						
			Agricultural tekhnikums (4 establishments, 5 in 1969)				
1962/63		1,882	502	379	522	479	363
1963/64		2,007	649	503	367	488	443
1964/65	P	(1,790)	(340)	(615)	(483)	(352)	(471)
	A	1,626	340	570	418	307	...
1969/70	P	(1,638)	(580)	...	...	...	...
	A	1,541	554	488	445	54	367 (in 1969)

Table 18. (Cont'd)

Year		Enrolment: Total	Year of study: VIII	IX	X	XI	Graduates
		Music and Choreography School (It has 10 grades)					
1962/63		449	-	-	-	449	-
1963/64		502	-	-	-	502	-
1964/65	P	(538)	-	-	-	(538)	(15)
	A	530	-	-	-	530	-
1969/70	P	(419)	-	-	-	-	-
	A	392	-	-	-	-	55 (in 1969)
		All schools					
1962/63		10,016	2,994	2,582	2,320	2,120	1,417
1963/64		10,213	3,204	2,780	2,219	2,010	2,269
1964/65	P	(10,325)	(2,290)	(3,062)	(2,593)	(2,380)	(1,842)
	A	9,340	2,321	2,671	2,321	2,027	...
1969/70	P	(11,204)	(3,410)	-	-	-	-
	A	10,966	3,470	3,037	2,963	1,496	2,565
		including students studying abroad					

b) Higher education

The number of students at the higher education level has increased from 95 in 1941 to 8,733 during the academic year 1969/70. In 1962/63, higher education enrolment represented over 9% of the estimated population in the corresponding age-group, but between 1962/63 and 1964/65 enrolment has increased by some 22%, thus increasing the participation rate to about 11% of the respective population groups.

Table 19 shows the growth of higher education from 1941 to 1969 by branch of study, while Table 21 presents higher education enrolment by grade (year of study) in each of the specialized institutes from 1962/63 to 1964/65 and for 1969/70 with an indication, for the last year, of the target figure established by the plan and the actual attainment.

Table 19. Students in higher education by branch of study, 1941-1969

Year	Establish-ment	Total	University	Agricul. Inst.	Pedagog. Inst.	Economics Inst.	Medical Inst.	Others
1941	1	95	95	...	...	...	...	...
1947	3	878	663	...	...	...	...	215
1952	4	1,843	1,071	...	345	...	...	427
1957	4	4,011	2,742	...	680	...	...	859
1959	6	4,726	1,933	985	876	322	...	610
1960	7	4,982	1,767	1,203	957	459	...	596
1961	8	5,633	1,130	1,389	1,011	706	799	598
1962	8	6,540	1,364	1,562	1,315	1,004	1,071	224
1963	8	7,731	1,724	1,672	1,280	1,362	1,155	538
1964 P	8	(8,462)	(1,910)	(1,649)	(1,482)	(1,385)	(1,197)	(839)
1964 A		8,274	1,963	1,629	1,414	1,290	1,214	764
1965	7	10,677	1,926	1,192	2,192	911	1,191	[2] 3,265
1969/70 P	5	(8,521)	[1] (2,286)	(815)	(1,525)	...	(1,070)	(2,825)
1969/70 A		8,733	2,376	793	1,563	...	1,118	[2] 2,883

1. Including students trained abroad.
2. Including Polytechnical Institute.

Table 20. Students in higher education by branch and year of study, 1962/63-1964/65; and 1969/70

Year		Total	I	II	III	IV	V	Graduates
				All establishments				
1962/63		6,540	2,079	1,744	1,338	992	387	728
1963/64		7,731	2,564	1,971	1,502	1,281	413	1,361
1964/65	P	(8,462)	(2,155)	(2,388)	(1,907)	(1,407)	(605)	(1,111)
	A	8,274	2,063	2,303	1,750	1,433	725	2,141
1969/70	P	(8,521)	(1,683)	-	-	-	-	1,810
	A	8,733	1,767	1,755	1,937	1,704	1,394	1,757

Table 20. (Cont'd)

Year		Total	I	II	III	IV	V	Graduates
			Pedagogical Institute					
1962/63		[1] 1,315	429	427	241	218	-	226
1963/64		[1] 1,280	526	345	213	176	-	350
1964/65	P	(1,482)	(560)	(408)	(317)	(197)	-	(188)
	A	1,414	519	428	270	197	-	433
1969/70	P	(1,525)	(500)	-	-	-	-	-
	A	1,563	562	527	591	573	273	356
			Economics Institute					
1962/63		[2] 1,004	407	283	198	116	-	69
1963/64		1,362	519	380	272	191	-	198
1964/65	P	[2](1,385)	(270)	(490)	(364)	(261)	-	(184)
	A	[2] 1,290	254	412	356	268	-	256
			Medical Institute					
1962/63		1,071	360	247	189	136	139	67
1963/64		1,155	280	338	222	176	139	156
1964/65	P	(1,197)	(250)	(264)	(325)	(188)	(170)	(160)
	A	1,214	250	285	296	197	186	183
1969/70	P	(1,070)	(230)	-	-	-	-	-
	A	1,118	236	243	235	218	186	203
			University					
1962/63		1,364	460	360	254	212	78	198
1963/64		[3] 1,700	600	456	346	252	46	223
1964/65	P	[3](1,910)	(530)	(564)	(462)	(302)	(52)	(263)
	A	[3] 1,963	566	554	389	305	149	304
1969/70	P	(2,286)	(230)	-	-	-	-	197
	A	2,376	236	243	235	218	186	203

1. Including students in one-year evening courses:
1962/63 - 184; 1963/64 - 137; 1964/65 - 132

2 Including students in evening classes and correspondence course:
1962/63 - 62; 1963/64 - 214; 1964/65 - 245

3 Including students in evening classes

Table 20. (Cont'd)

Year		Total	I	II	III	IV	V	Graduates
				Agricultural Institute				
1962/63		1,562	351	366	408	267	170	114
1963/64		1,672	404	318	338	384	228	255
1964/65	P	(1,649)	(245)	(383)	(312)	(326)	(383)	(226)
	A	1,629	249	347	315	328	390	416
1969/70	P	(815)	(220)	-	-	-	-	(207)
	A	793	229	142	170	104	148	212
				Institute of Physical Culture and Sports				
1963/64		278	111	66	60	41	-	42
1964/65	P	(326)	(100)	(105)	(63)	(58)	-	(40)
	A	327	102	102	60	63	-	62
				Higher Party School				
1962/63		72	72	-	-	-	-	-
1963/64		168	100	68	-	-	-	-
1964/65	P	(463)	(200)	(174)	(64)	(25)	-	-
	A	387	123	175	64	25	-	-
1969/70	P	(267)	(70)	-	-	-	-	-
	A	260	57	70	69	64	-	-
				Evening Financial Institute				
1962/63		152	-	61	48	43	-	52
1963/64		102	-	-	51	41	-	41
1964/65	P	(50)	-	-	-	(50)	-	(50)
	A	50	-	-	-	50	-	51

3. Financing of education

Data on educational expenditure are presented in Tables 21 and 22.

The percentage of total current educational expenditure in total current government expenditure from 1960 to 1964 was as follows:

1960	20.7%
1961	19.2%
1962	20.6%
1963	29.0%
1964	(24.8%)

The figures for 1960 to 1963 represent actual expenditure, while for 1964 the budget figure is shown. National income data are in preparation, and not yet available. Official estimates, however, place the State budget at 70% of national income. On this basis, national income could be estimated in 1963 at 1,900 million tugriks*. Current educational expenditure would thus represent about 10% of national income.

Current educational expenditure increased during the period 1960-1963 at an average annual rate of 11.2%, while the budgeted sum for 1964 represents a 16% increase over 1963.

Capital expenditure for education increased from 11 to 33 million tugriks from 1960 to 1963. The percentage in total government capital expenditure was:

	%
1960	3.0
1961	3.4
1962	9.8
1963	8.5
1964	7.1

It is interesting to note that expenditures on scholarships and food were almost equal to expenditure on salaries:

The distribution of expenditure by type of education in 1960 and 1963 was:

	1960	1963
Total expenditure	100.0	100.0
Higher education	19.3	19.4
Secondary specialized education (Tekhnikum)	20.5	20.9
General education	43.7	40.2
Kindergarten	8.3	9.7
Vocational education	8.2	9.7

The following figures show the estimated current cost per pupil/student in different types of education:

Higher education	5,670 tugriks
Secondary specialized education	4,225
General education	670

Expressed in US dollars at the official exchange rate, the estimated average per-student cost amounts to $1,418 in higher education, $1,056 in secondary specialized education and about $168 in general education. As stated above, over 50% of the cost in higher and secondary specialized education is accounted-for by scholarships. If the scholarships are deducted, the net cost per student amounts to about 2,530 tugriks (US$ 632) in higher education, and to about 1,500 tugriks (US$ 375) in secondary specialized education - i.e., over twice as much in general education.

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* One U.S. dollar is equal to four tugriks.

Present Educational Plan

The Fourth Five-Year Plan of Economic and Cultural Development of the Mongolian People's Republic (1966-1970) is to be an important stage in implementing the tasks involved in the completion of the socialist construction of the country, as called for by the new Programme of the Mongolian People's Revolutionary Party. The main economic goals of the new Five-Year plan consist of (1) expanding and stabilizing the material technical resources of the national economy, (2) a further industrialization of the country, (3) raising the labour productivity, (4) improving the results of utilization of production funds and, on the basis of this, continuing to develop the agricultural, industrial and other branches of the national economy and (5) constantly improving the material and cultural standards of the people. Educational objectives form a part of the fifth goal.

The main goals in the educational field as described in the programme of the Mongolian People's Revolutionary Party are: (1) to improve further the public education system, to improve the quality and content of teaching, to combine studies with socially useful labour, and to raise the role of parents, teachers, and public in the education and upbringing of children; (2) in the near future to strive for providing all school-age children with incomplete secondary education, and to prepare ground for the eventual system of providing all children with full secondary education; (3) to increase the number of kindergartens and general educational schools and to make additions in school-dormitories in local communities for boarding of school children; (4) to intensify the development of the higher and secondary special education system, and to train more cadres with good theoretical and political knowledge for skilled positions; (5) to develop a system of educating adults without disrupting their occupational work, train specialists with correspondence schooling or night classes and provide refresher-courses for all specialists; (6) to develop the system of technical instruction, which is an important method of organized increase in the working-class ranks, in order to train skilled personnel for industry, agriculture, construction and other branches of the national economy.

In quantitative terms the targets of the five-year plan are as follows;

General Education

a) By 1970 to increase the number of pupils attending general educational schools to 226,000 (45% more than in 1965).

b) To strengthen the material resources of the schools. Aside from building 100-120 incomplete secondary schools in Somons, to provide 45-50% of students in rural areas with dormitories.

c) In order to improve constantly the education of workers and employees, to set up many schools of temporary, seasonal or late (shift) types.

d) To bring the number of kindergarten-schoolchildren to 32,000 by 1970; that is, 30% more than in 1965.

e) To train teachers for general educational schools and improve their qualifications.

Vocational Education

f) To improve and train 23,000 cadres (technicians) in five years with special vocational secondary education, 40% more than in 1961-1965 period.

g) To create a higher polytechnic school for the training of technical cadres and engineers for various branches of the national economy.

h) To improve the quality of training of cadres with higher and secondary technical skills.

i) To increase by 1970 the admissions into secondary vocational schools by 65% as compared to 1965, into higher educational institutes by 1.5% - and to expand the evening and correspondence schools.

Training

j) To build 13 new technical training schools in the five-year period, and to strengthen the material resources of the existing schools.

k) To accept 32,000-35,000 pupils into technical training schools, mainly from among graduates of general educational schools.

l) To train directly at production sites some 24,000 persons by apprenticeship or at short term courses.

The needs for additional manpower of 50,000 for carrying out the Fourth Five-Year Plan include needs for an additional 30,000 workers in the material production branches.

About 50,000 youngsters graduating from general education schools during the plan period will be transferred to various enterprises of the national economy to work in them.

During the new Five-Year Plan period, the State will invest about 80 million tugriks for stabilizing the material resources of technical training schools. As a result, by 1970 there will be 22 schools for training in technical skills for various enterprises of the economy. The goals of the Five-Year Plan call for the training of about 5,000 skilled agricultural workers, and more attention will be paid by the Ministry of Agriculture to the improvement of teaching and material resources of these schools.

Table 21. Total public expenditure and expenditure on education 1960 - 1964
(in thousands of tugriks)

Type of expenditure		Actual expenditure				Budget
		Year				
		1960	1961	1962	1963	1964
Total Government expenditure, of which:	1.	1,016,807.8	1,319,879.8	1,280,977.8	1,356,754.8	1,437,000.0
Capital expenditure	2.	380,733.9	525,337.5	444,795.2	395,313.4	489,600.0
Education (4 + 9)	3.	143,077.6	169,767.8	215,997.9	235,529.4	269,717.0
Current expenditure 1/	4.	131,695.1	132,128.5	172,494.7	202,070.5	234,969.0
Salaries	5.	47,454.3	50,978.1	56,326.9	64,540.2	67,254.0
Food	6.	8,338.0	11,213.0	12,154.7	15,773.6	21,686.0
Scholarships	7.	36,118.0	39,513.6	45,220.0	52,306.2	62,555.0
Other expenditure	8.	39,744.0	50,423.8	56,793.1	69,450.5	83,474.0
Capital expenditure	9.	11,382.5	17,659.3	43,503.2	33,458.9	34,748.0
1/ Excluding administrative expenditure of the Ministry of Education.						
Current education expenditure as % of total current expenditure		20.7	19.2	20.6	29.0	24.8
Capital expenditure for education as % of total capital expenditure		3.0	3.8	9.8	8.5	7.1

Table 22. Educational expenditure, by level of education 1960 - 1964
(in thousands of tugriks)

		Year				1964
		1960	1961	1962	1963	(Budgeted)
Higher education	Total	25,495.5	26,999.9	31,835.1	39,188.0	42,586.0
(a) Salaries		8,347.0	8,505.5	9,908.0	10,860.7	10,951.0
(b) Scholarships		12,891.4	14,154.4	17,070.9	21,691.4	24,413.0
(c) Other expenses		4,257.1	4,340.0	4,856.2	6,635.9	7,222.0
Secondary specialized education		26,944.2	33,174.2	36,051.3	42,322.5	44,507.0
(a) Salaries		5,753.9	6,358.1	6,875.3	8,264.8	8,507.0
(b) Scholarships		20,674.1	22,414.0	23,702.0	26,426.9	28,746.0
(c) Other		516.2	4,401.8	5,472.9	6,630.9	7,254.0
General education schools (including out-of-school education)		57,547.1	65,393.4	70,351.5	81,318.0	88,583.0
(a) Salaries		32,258.0	35,219.3	38,312.8	43,841.6	44,828.0
(b) Food		8,338.0	11,213.0	12,154.7	15,773.6	21,686.0
(c) Other		16,951.1	18,961.1	19,884.0	21,702.8	22,069.0
(d) Capital investment		11,382.5	17,659.3	43,503.2	33,458.9	34,748.0
Kindergartens		10,919.2	14,331.6	16,906.1	19,571.2	34,839.0
Vocational schools		10,789.1	12,229.1	17,370.5	19,671.0	24,454.0
Salaries		1,095.4	895.2	1,230.8	1,573.1	2,968.0
Scholarships		2,553.3	2,944.9	4,446.9	4,187.9	9,396.0
Other		7,140.4	8,389.0	11,692.8	13,910.0	12,090.0

CHAPTER III

EDUCATIONAL PROJECTION UP TO 1980

General education

At the primary school level the projection calls for an average annual growth-rate of enrolment between 1963/64 and 1975/76 of 3.1%, or only slightly higher than the assumed population growth. The number of teachers would have to increase accordingly from 2,694 in 1963/64 to 4,000 in 1975/76 and 4,600 in 1980/81, assuming a constant pupil/teacher ratio of 1:32, or at a rate of some 110 new teachers a year not counting replacements. Some reduction in the number of teachers needed could be attained by the increase of class-size to 35 pupils, but in the present circumstances this does not seem possible in view of the limited size of a large number of existing classrooms.

To reach the target for the incomplete secondary school requires much greater efforts. In order to achieve a 100 % enrolment ratio in 1975/76, the total number of pupils in the 5th to 8th years of school would have to increase from around 44,000 in 1963/64 to 87,000 in 1975/76, or about double in twelve years. Together with enrolment in secondary schools the number of children in grades V-X would have to increase from 50,000 to 116,000 between 1963/64 and 1980/81. At the present rate of 22 pupils per teacher, 5,300 teachers would be needed in 1980/81 as against 2,121 in service in 1963/64. To attain the target, an average of about 200 new teachers, not counting replacements, would be needed annually. Here again, a reduction in the number of teachers required could be sought through an increase in the size of classes.

The overall result of the projection, as far as general education is concerned, is an enrolment pattern requiring an average annual growth of 4.2% of total enrolment in general education schools.

At the present (1963/64) average cost of 670 tugriks (US$ 168) per-pupil per-year in current expenditure in general education, the overall cost of the projected general education pyramid would increase to 176,000,000 tugriks, as against an average growth of over 12% registered from 1960 to 1963. The projected current expenditure is presented in Table 26.

Capital expenditure required from 1963/64 to 1980/81 exclusive of replacement of inadequate buildings or present shortage of school places, estimated at 3,750 tugriks (US$938) per pupil-place would amount to 580,000,000 tugriks, or an average of about 36,500,000 tugriks a year. Between 1960 and 1963, capital expenditure fluctuated between 11,382,500 and 43,503,200 tugriks annually.

Table 23. Estimated population by single years of age, enrolment by years of study and sex, and school participation rates, 1962/63

Age	Population (000's)	Grades	Total enrolment (000's)	Enrolment ratio (%)	General Education*		Specialized Education	
					Total (000's)	Female (000's)	Total (000's)	Female (000's)
8	26.0	I	22.7	87	22.7	11.3	-	-
9	23.4	II	20.8	89	20.8	10.4	-	-
10	21.2	III	18.9	89	18.9	9.3	-	-
11	18.7	IV	18.5	100	18.5	9.0	-	-
8 - 11	89.3	I-IV	80.9	93	80.9	40.0		
12	16.8	V	14.0	83	14.0	6.5	-	-
13	14.7	VI	10.8	73	10.8	5.0	-	-
14	15.0	VII	9.1	60	9.1	4.1	-	-
12 - 14	46.5	V-VII	33.9	73	33.9	15.6	-	-
15	14.8	VIII	6.8	46	3.8	1.7	3.0	1.2
16	14.3	IX	5.1	36	2.5	1.0	2.6	1.0
17	14.0	X	4.6	33	2.3	0.8	2.3	0.9
15 - 17	43.1	VIII-X	16.5	38	8.6	3.5	7.9	3.1
18	14.0	1	5.3	38	2.3	0.8	3.0	1.0
19	14.0	2	1.8	14	1.8	0.6	-	-
20	14.0	3	1.4	10	1.4	0.5	-	-
21	14.5	4	1.0	7	1.0	0.3	-	-
22	14.5	5	0.4	3	0.4	0.1	-	-
18 - 22	71.0	1-5	9.9	14	6.9	2.3		

* Including all types of higher education, years 1-5.

Table 24. Estimated population by single years of age, enrolment by years of study and sex, and school participation rates, 1980/81

Age	Population (000's)	Grades	Total enrolment (000's)	Enrolment ratio (%)	General Education*		Specialized Education	
					Total (000's)	Female (000's)	Total (000's)	Female (000's)
8	43.1	I	43.1	100.0	43.1	21.6	-	-
9	38.6	II	38.8	100.0	38.8	19.4	-	-
10	35.2	III	35.2	100.0	35.2	17.6	-	-
11	30.9	IV	30.9	100.0	30.9	15.4	-	-
8 - 11	148.0	I-IV	148.0	100.0	148.0	74.0	-	-
12	28.0	V	28.0	100.0	28.0	14.0	-	-
13	26.0	VI	26.0	100.0	26.0	13.0	-	-
14	25.0	VII	25.0	100.0	25.0	12.5	-	-
15	23.0	VIII	23.0	100.0	23.0	11.5	-	-
12 - 15	102.0	V-VIII	102.0	100.0	102.0	51.0	-	-
16	23.7	IX	12.5	52.7	7.0	3.0	5.5	2.0
17	23.3	X	12.5	53.0	7.0	3.0	5.5	2.0
16 - 17	47.0	IX-X	25.0	53.0	14.0	6.0	11.0	4.0
18	24.0	1	10.0	41.7	6.0	2.0	4.0	1.5
19	24.0	2	5.0	20.8	5.0	1.6	-	-
20	24.0	3	4.0	16.7	4.0	1.3	-	-
21	24.0	4	2.0	8.4	2.0	0.6	-	-
22	24.0	5	1.0	4.2	1.0	0.3	-	-
18 - 22	120.0	1 - 5	22.0	18.3	18.0	5.8	4.0	1.5

* Including all types of higher education, years 1-5.

Table 25. Projected enrolment, 1962/63-1964/65 and 1970/71, 1975/76, 1980/81 (in thousands)

(Note : Actual data for 1962/63 and 1963/64 and projections for 1964/65, 1970/75, 1975/76 and 1980/81)

Level of education	- Year - 1962/63	1963/64	1964/65	1970/71	1975/76	1980/81
Primary						
Population 8 - 11	89.3	92.4	(95.0)	(110.0)	(128.0)	(148.0)
Enrolment 1 - 4	80.9	88.9	(91.9)	(108.4)	(128.0)	(148.0)
Per cent enrolled	93	96	(97)	(98)	(100)	(100)
Incomplete secondary						
Population 12 - 15	61.5	63.0	(65.0)	(75.0)	(87.0)	(102.0)
Enrolment 5 - 8 plus 1st yr. Gen. Sec. and Specialized	33.8) 6.8))40.6	37.0) 6.8))43.8	(47.2)	(64.1)	(87.0)	(102.0)
Per cent enrolled	68	70	(73)	(85)	(100)	(102)
Secondary						
Population 16 - 17	28.3	29.1	(30.0)	(33.7)	(39.0)	(47.0)
Enrolment 9 - 10	4.8	5.7	(6.0)	(8.0)	(10.6)	(14.0)
Per cent enrolled	17	19	(20)	(24)	(27)	(29)
Secondary specialized						
Population 16 - 17 18	28.3) 14.0) 42.3	43.6	(44.8)	(52.0)	(60.2)	(69.8)
Enrolment 9 - 11	7.0	7.0	7.0 1/	(9.0)	(11.6)	(15.0)
Per cent enrolled	16.5	16.1	15.6	(17.3)	(19.2)	(21.4)
Higher						
Population 18 - 22	71.0	73.1	(75.3)	(87.5)	(101.7)	(118.0)
Enrolment	6.0	8.2	8.4	(10.6)	13.5	18.0
Per cent enrolled	9.7	11.2	(11.2)	(12.7)	(14.6)	(16.6)

1/ The planned figure for 1964/1965 was 8.0, or 17.9% of the corresponding population group.

Table 26. Cost of projections in current expenditure 1963-1980
(thousands of tugriks)

Year		General education schools	Secondary specialized schools	Higher education	Total
1963	(A)	81 318.0	42 322.5	39 188.0	162 828.5
1964	(B)	88 583.0	44 507.0	42 586.0	175 676.0
1965		92 500.0	45 500.0	45 500.0	183 000.0
1970		114 600.0	50 700.0	59 000.0	224 000.0
1975		142 400.0	56 000.0	78 000.0	277 000.0
1980		176 900.0	63 400.0	102 000.0	342 300.0

The following figures indicate the actual shortage of school places in 1964 in general education schools and the provisions planned for 1965 and 1969/70.

	1964	1965	1969/70
Total pupils (000's)	147.0	155.5	194.3
School places available	94.0	100.0	125.0
Number of new places to be provided	13.0	7.0	55.0
Pupils in double shifts			
Number (000's)	53.0	55.0	69.3
Per cent	36.0	35.5	35.6

Proceeding from the number of school places available in 1964, the additional number to be provided by 1980, according to the projection, would amount to 170,000, representing a rough average of 40 million tugriks a year at 3,750 tugriks per place.

Secondary specialized education

The extension of compulsory education, on the one hand, and the increasing demand for medium-level technicians, on the other, will affect the volume of enrolment in secondary specialized schools. It is estimated that the number of pupils should more than double in this type of school, despite the anticipated reduction of the period of schooling from the present four years to three years. Under this assumption, the number of tekhnikum graduates would double in respect to the anticipated figure for 1965, thus assuring the economy the necessary stream of qualified manpower.

The 2.2% annual rate of increase in enrolment from about 11,000 in a four-year school in 1962/63 to about 15,000 in a three-year school in 1980 is paralleled

by the increase in current costs, including scholarships, from 42.3 million "tugriks" to 63.4 million (see Table 17). It may be noted that the expansion of enrolment would necessitate additional space in view of the present overcrowding; the capital investment for buildings, including their equipment, would have to take place in the early period covered by the projection in order to make this expansion possible.

Higher education

It is estimated that, consequent on the increase in numbers in secondary education, enrolment in higher education will increase from 8,400 in 1964/65 to some 18,000, or at a rate of about 4.9% a year.

Because of the high cost of scholarships which inflate per-student expenditure in higher education, the total amount needed to sustain that enrolment would have to increase from the 42.6 million "tugriks" provided in the budget for 1964/65 to some 102 million, at an average rate of 5.6% a year.

Overall cost

The estimated overall cost of the projected 1980 school pyramid in current expenditure, not counting kindergartens and vocational schools, would amount to 342 million "tugriks" at 1963 prices. Compared with the 1964 budget, this would represent an average annual rate of increase in current expenditure of 4.2%. This compares favourably with the 6.5% average annual increase in total government expenditure between 1960 and 1964, and with the anticipated growth of national income of 6 to 8% during the period of the Fourth Five-Year Plan.

Despite the fact that the projection reflects national aspirations and targets fairly faithfully and the financial burdens, as far as current expenditure is concerned, seem to be well within the country's possibilities, it would appear, for the reasons set forth below, to represent the "maximum" pyramid which could be attained only through increased efforts and help from outside:

a) The high rate of demographic increase assumed;

b) The heavy short-term demand on capital investment due to the fact that a substantial proportion of capital expenditure necessary for the expansion of the system would have to be incurred in the early stages of the period;

c) The present acute material shortages (building hardware, school equipment) and building labour shortages affecting the school construction programme.

Concluding remarks

The available school facilities are over-saturated, and any further expansion of the system requires a greater numbers of qualified teachers, new buildings and more equipment.

Great efforts are being made in the field of teacher training. The school building programme, however, already beset by such local factors as temporary

building-labour shortages due to the demand of other sectors, is facing a major difficulty in the form of the acute shortages of building hardware (such as nails, bolts, nuts, hinges, door-knobs), this seriously limiting rapid expansion possibilities. Furthermore, the growth of the system calls for laboratory and workshop equipment which cannot be provided without outside help. In the opinion of the educational planning authorities therefore, it is anticipated that for the realization within the Fourth Five-Year Plan of the anticipated targets, foreign assistance will be needed in the following directions :

1. Building hardware for new schools and boarding facilities for pre-school establishments;
2. Equipment for laboratories and workshops in secondary education;
3. Furniture for schools and kindergartens;
4. Equipment for the Polytechnical Institute;
5. Equipment for teacher training institutions;
6. Textbook production.

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Table 27. Population, and density, 1918-1969
(all data for beginning of year)

Year	Population (in 000's)	Population per sq. km.
1918	647.5	0.42
1925	651.7	0.42
1928	709.0	0.46
1935 (1 June)	738.2	0.47
1938	747.5	0.48
1944 (15 Oct.)	759.2	0.48
1947	759.5	0.49
1952	787.8	0.50
1953	802.2	0.51
1954	816.6	0.52
1955	831.0	0.53
1956 (5 Feb.)	845.5	0.54
1957	862.0	0.56
1958	884.8	0.57
1959	909.7	0.59
1960	936.9	0.60
1961	968.1	0.62
1962	983.6	0.63
1963 (C) (5 Jan.)	1 018.0	0.65
1964 (E)	1 049.8	0.67
1969	1 197.2	0.76

Table 28. Population, by sex, 1935-1964

Year	Total population (in 000's)	Male	Female	Per cent of total Male	Female
1935	738.2	370.2	367.4	50.2	49.8
1938	747.5	367.6	379.9	49.2	50.8
1944	759.2	371.2	388.0	48.9	51.1
1947	759.5	371.7	387.8	48.9	51.1
1956	845.5	420.3	425.2	49.7	50.3
1958	884.8	440.6	444.2	49.8	50.2
1959	909.7	453.5	456.2	49.8	50.2
1960	936.9	467.3	469.3	49.9	50.1
1961	968.1	483.6	484.5	50.0	50.0
1962	983.6	491.9	491.7	50.0	50.0
1963	1 018.0	508.8	509.2	50.0	50.0
1964	1 049.8	525.0	524.8	50.0	50.0

Table 29. Population, by 5-year age-groups, 1963 census (in 000's)

Age-group	Total	Male	Female
All ages	1 018.0	508.8	509.2
0-4	169.9	85.3	84.6
5-9	139.5	90.5	69.0
10-14	87.4	44.1	43.3
15-19	91.0	36.6	34.4
20-24	72.1	35.9	36.2
25-29	70.8	35.5	35.3
30-34	64.4	33.5	30.9
35-39	57.4	29.3	28.1
40-44	47.7	25.6	22.1
45-49	52.0	24.7	27.3
50-54	43.7	21.9	21.8
55-59	42.1	19.5	22.6
60 plus	100.0	46.4	53.6

Table 30. Birth rates, death rates and natural increase, 1955-1963

Year	Number (000's)			Per 1,000 Population		
	Births	Deaths	Natural increase	Births	Deaths	Natural increase
1955	26.9	11.8	15.1	32.3	14.4	18.1
1956	29.7	10.6	19.1	34.8	12.3	22.5
1957	32.6	9.7	22.9	37.3	11.1	26.2
1958	34.7	9.9	24.8	38.6	11.0	27.6
1959	36.6	9.3	27.3	39.7	10.0	29.7
1960	41.2	10.0	31.2	43.2	10.5	32.7
1961	40.0	10.0	30.0	40.7	10.2	30.5
1962	42.1	10.2	31.9	41.8	10.1	31.7
1963	41.6	10.1	31.5	40.6	9.8	30.8

Table 31. School enrolment by grade and stream

Stage of education	Grade	1962/63			1963/64			1969/70		
		General education		Prof./Voc.*	General education		Prof./Voc.*	General education		Prof./Voc.*
		Total	Female	Total	Total	Female	Total	Total	Female	Total
Primary	I	22 731	11 252	-	26 509	13 131	-	36 972	18 323	-
	II	20 814	10 368	-	22 111	11 007	-	36 743	18 358	-
	III	18 874	9 285	-	20 510	10 278	-	33 767	16 601	-
	IV	18 520	9 022	-	19 729	9 729	-	29 938	14 920	-
Total (I-IV)		80 939	39 927	-	88 859	44 145	-	1 37 420	68 202	-
Lower secondary	V	13 992	6 501	-	15 660	7 529	-	24 569	12 173	-
	VI	10 756	4 970	-	11 555	5 429	-	19 290	9 815	-
	VII	9 060	...	-	9 740	...	-	16 485	...	-
Total (V-VII)		33 808	...	-	36 955	...	-	60 344	...	-
Upper secondary	VIII	3 795	...	2 994	4 245	...	2 321	8 010	...	3 470
	IX	2 471	...	2 582	3 331	...	2 671	3 214	...	3 037
	X	2 308	...	2 320	2 393	...	2 321	2 776	...	2 963
Total (VIII-X)		8 574	...	7 896	9 969	...	7 313	14 000	...	9 470
Higher	XI	2 280	...	2 120	2 063	...	2 027	1 775	...	1 496
	XII	1 849	...	-	2 303	...	-	1 755	...	-
	XIII	1 403	...	-	1 890	...	-	1 937	...	-
	XIV	992	...	-	1 433	...	-	1 704	...	-
	XV	387	...	-	725	...	-	1 394	...	-
Total (XI-XV)		6 911	...	2 120	8 414	...	2 027	8 565	...	1 496

* Professional/Vocational stream

Table 32. Execution of educational plan in 1963 compared with 1961 and 1962; 1969

No.	Item	1961	1962	1963 Plan	1963 Execution	1963 %	1963 as % 1962	1969 Plan	1969 Actual
	Total No. of general education schools	429	427	435	428	98.4	100.2	482	484
	of which: Primary	314	304	301	294	97.7	96.7	234	234
	Incomplete secondary	71	74	85	85	100.0	114.9	196	198
	Complete secondary	44	49	49	49	100.0	100.0	52	52
2.	Evening schools for young workers and adults	62	75	100	195	95.0	126.7	90	88
3.	No. of pupils in gen. ed. schools	114 837	123 321	130 220	135 843	104.3	110.2	206 434	211 764
	of which: Grades I-IV	76 123	80 939	83 600	88 859	106.3	109.8	137 420	137 420
	V-VII	31 345	34 808	37 210	36 955	99.3	106.2	60 344	60 344
	VIII-X (XI)	7 369	8 574	9 410	10 029	106.6	117.0	8 670	14 000
4.	No. of pupils in evening schools 1/	8 777	10 587	12 755	10 676	83.7	102.0	10 800	8 111
5.	No. of pupils in dormitories	19 668	21 549	26 600	23 735	89.2	110.1	33 350	32 213
	Per cent of total No. of pupils	17.1	17.5	20.5	17.5	-	-	16.2	15.2
6.	Enrolment: Grade I	21 743	22 731	24 920	26 509	106.4	116.6	35 500	36 972
	V	13 154	13 992	14 500	15 659	108.0	111.9	23 500	24 569
	VIII	2 911	3 795	3 620	4 245	63.4	60.4	-	8 010
	IX	...	2 471	...	3 331	...	134.8	3 400	3 214
7.	Completed school: Grade IV	15 224	15 655	16 740	16 325	97.5	104.3	-	29 938
	VII	5 955	7 358	8 160	8 406	103.0	114.2	-	16 485
	X	1 661	1 944	2 080	2 304	111.3	119.0	-	2 776
8.	Completed evening schools: Grade IV	1 722	1 108	1 434	1 521	106.1	137.3	-	...
	VII	770	890	1 506	1 141	75.8	128.2	-	...
	X	380	548	882	896	101.6	163.5	-	...
9.	No. of teachers	4 300	4 373	4 739	4 815	101.6	110.1	7 800	7 928
	Grade I-IV	2 408	2 507	2 745	2 694	98.1	107.4	4 240	4 362
	V-X (XI)	1 892	1 866	1 994	2 121	106.4	113.7	3 560	3 566
10.	No. of kindergartens	202	228	446	315	70.6	128.6	535	531
	of which: State-supported	170	196	231	230	99.6	117.3	276	275
	Supported by agricultural communities	32	49	215	85	39.6	173.6	259	256
11.	Enrolment in kindergartens	12 225	13 149	22 885	18 436	80.6	116.8	29 635	29 959
	of which State-supported	11 080	14 218	17 190	16 563	96.4	116.5	21 220	22 252
	Supported by agricultural communities	1145	1 561	5 695	1 873	32.9	120.0	8 415	7 707
	No. of teachers in kindergartens	543	566	906	695	76.7	122.8	-	1 099

1/ Not distributed by grade

Table 33. Teachers in general education schools 1961/62-1963/64-1969/70

	1961/62		1962/63		1963/64		1969/70	
	Plan	Execution	Plan	Execution	Plan	Execution	Plan	Execution
Total of which:	4 047	4 300	4 425	4 373	4 739	4 815	7 800	7 928
Grade I - IV	2 340	2 408	2 550	2 507	2 745	2 694	4 240	4 362
V - X	1 707	1 892	1 875	1 866	1 994	2 121	3 560	3 566
Grade V-X teachers by subject:								
Mongolian language	341	319	343	345	389	404	...	633
Maths. and physics	461	460	451	453	538	450	...	815
Chemistry and biology	204	282	224	234	210	277	...	404
History	171	183	180	159	199	167	...	227
Geography	102	132	104	133	120	125	...	201
Russian	222	207	240	230	238	239	...	426
Drawing and manual work	154	173	198	134	180	312	...	373
Physical education	52	100	110	96	120	126	...	287
Music and singing	-	36	25	6	-	21	...	97

Table 34. Enrolment in general education by type of school, and by grade, 1961/62-1963/64, and 1969/70

Type of school	Grade	1961/62		1962/63		1963/64		1969/70	
		Total	Girls	Total	Girls	Total	Girls	Total	Girls
Total all schools		114 837	55 177	123 321	59 028	135 843	66 129	211 764	106 012
Primary schools	I-IV	39 131	19 373	38 876	19 078	41 809	20 717	40 347	20 023
	I	11 125	5 610	10 991	5 471	12 565	6 226	11 188	5 503
	II	9 944	4 909	9 984	4 920	10 486	5 256	10 797	5 320
	III	9 461	4 709	9 214	4 463	9 646	4 822	9 761	4 899
	IV	8 601	4 145	8 687	4 224	9 112	4 413	8 601	4 301
7-year schools	I-VII	28 104	13 332	29 596	13 954	23 991	11 338	-	-
	I	4 434	2 190	4 390	2 211	3 909	1 903	-	-
	II	3 719	1 869	4 281	2 160	3 211	1 603	-	-
	III	3 589	1 747	3 766	1 881	3 073	1 480	-	-
	IV	3 615	1 769	3 820	1 841	2 969	1 471	-	-
	V	5 654	2 600	5 784	2 592	4 972	2 321	-	-
	VI	3 945	1 748	4 299	1 884	3 248	1 467	-	-
	VII	3 148	1 409	3 256	1 385	2 609	1 098	-	-
8-year schools	I-VIII	-	-	-	-	12 976	6 394	102 919	51 490
	I	-	-	-	-	2 259	1 110	16 540	8 291
	II	-	-	-	-	1 663	801	16 630	8 313
	III	-	-	-	-	1 746	912	15 326	7 549
	IV	-	-	-	-	1 585	804	13 519	6 693
	V	-	-	-	-	2 411	1 152	15 270	7 562
	VI	-	-	-	-	1 743	833	11 622	5 916
	VII	-	-	-	-	1 511	754	9 709)	7 166
	VIII					58	28	4 303)	
10-year schools	I-X	47 602	22 472	54 849	25 996	32 078	15 453	68 498	34 999
	I	6 184	3 002	7 350	3 570	4 416	2 185	9 244	4 529
	II	5 466	2 773	6 549	3 288	3 842	1 860	9 316	4 725
	III	4 899	2 493	5 894	2 941	3 354	1 683	8 680	4 153
	IV	5 086	2 533	6 013	2 957	3 499	1 707	7 818	3 926
	V	7 530	3 532	8 208	3 909	4 846	2 317	9 299	4 611
	VI	6 267	2 988	6 457	3 086	3 737	1 764	7 668	3 899
	VII	4 801	2 244	5 804	2 722	3 187	1 529	6 776)	
	VIII	2 911	1 219	3 795	1 736	2 226	1 064	3 707)	9 156
	IX	2 445	939	2 471	953	1 814	867	3 214)	
	X	2 013	699	2 308	834	1 157	477	2 776)	
11-year schools	I-XI	-	-	-	-	24 989	12 227	-	-
	I	-	-	-	-	3 360	1 707	-	-
	II	-	-	-	-	2 909	1 487	-	-
	III	-	-	-	-	2 691	1 381	-	-
	IV	-	-	-	-	2 564	1 334	-	-
	V	-	-	-	-	3 431	1 739	-	-
	VI	-	-	-	-	2 827	1 365	-	-
	VII	-	-	-	-	2 433	1 159	-	-
	VIII	-	-	-	-	1 961	900	-	-
	IX	-	-	-	-	1 517	679	-	-
	X	-	-	-	-	1 236	476	-	-
	XI	-	-	-	-	-	-	-	-